
APPENDIX F

PHASE I PRELIMINARY SITE INVESTIGATION

MANOKOTAK AIRPORT IMPROVEMENTS

ADOT&PF Project No. 55313

Final Phase I Preliminary Site Investigation

January 15, 2004



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Manokotak Airport Improvements
Final Phase I Preliminary Site Investigation
Table of Contents

1.0	Introduction.....	1
1.1	Purpose.....	1
1.2	Scope of Services.....	2
2.0	Background Information.....	3
3.0	Results.....	5
3.1	Location and Land Ownership.....	5
3.2	Physical Setting.....	6
3.3	Field Reconnaissance.....	7
3.4	Previous Environmental Investigations	10
3.5	Records Review	10
3.6	Aerial Photography Review.....	13
3.7	Physical Setting Source(s)	13
3.8	Interviews.....	14
4.0	Conclusions and Recommendations	17
5.0	Limitations and Restrictions	19
6.0	References.....	21

FIGURES

1	Vicinity and Location Map
2	Site Map

APPENDICES

A	Data Sheets
B	Photographs
C	Regulatory Records Documentation
D	Interview Transcripts

1.0 INTRODUCTION

The State of Alaska Department of Transportation and Public Facilities (ADOT&PF) and the Federal Aviation Administration (FAA) are proposing to improve the Manokotak Airport. The configuration of the existing airport does not meet the standards required for certain aircraft types currently operating at Manokotak and does not satisfy required apron/runway separation distances. In addition, the location of the existing airport is subject to airspace penetrations and inclement weather. Proposed airport improvements would either extend and resurface the existing airstrip with accompanying relocation of the apron and access road or construct a new airport at one of two locations in the Manokotak vicinity.

ADOT&PF has retained PDC Inc. Consulting Engineers as the project design consultant; MACTEC Engineering and Consulting, Inc. (MACTEC), is providing the natural resources/biological and hazardous materials assessment. MACTEC personnel conducted a Phase I Site Investigation of the proposed alternatives, existing and potential gravel material sites, and adjoining parcels. This report summarizes the environmental condition of the subject parcels.

1.1 Purpose

The purpose of this site investigation is to identify recognized environmental conditions within the boundaries of the proposed airport alternatives, existing and potential gravel mine sites, and adjoining parcels (herein referred to as the project area). Environmental conditions are defined as the presence or likely presence of hazardous substances or petroleum products that present a material risk of harm to public health and the environment.

1.2 Scope of Services

This Phase I Preliminary Site Investigation was performed in accordance with Article B5.5.6.5, Phase I Preliminary Site Investigation, of the MACTEC and PDC contract agreement and in general accordance with the American Society for Testing and Materials (ASTM) E 1527-00 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*.

Per Article B5.5.6.5 of the contract agreement, the Phase I Preliminary Site Investigation included the following tasks:

Conduct a Phase I Preliminary Site Investigation of the project area to identify sites that are or could potentially be contaminated with hazardous materials. The project area includes the existing and potential right-of-way and properties abutting the proposed right-of-way required for each project alternative.

Prepare a report that summarizes the results of the Phase I Preliminary Site Investigation to include all known or potentially contaminated sites identified during the investigation and recommendations for further investigation, if appropriate. Append appropriate background information such as logs of personal interviews, historical aerial photographs, land use records, previous reports, and pertinent information from regulatory agency files to the report.

2.0 BACKGROUND INFORMATION

Manokotak is 25 miles southwest of Dillingham on the eastern bank of the Igushik River, as shown in Figure 1, Vicinity and Location Map. The geographic position of the village is at approximately 58.98139° north latitude and -159.05833° west longitude (Section 12, Township 14 South, Range 59 West, Seward Meridian).

Access is primarily by air and water. The existing airstrip is open year-round. Cargo is also delivered by barge when the river is ice-free between June and mid-November. Limited volumes of fuel are hauled by snowmobile from Dillingham when sufficient snow/ice covers the Manokotak Trail (DOWL, 1982).

Manokotak is a Yup'ik Eskimo village that was established in 1946-47 to consolidate residents of the Igushik and Tuklung villages. The estimated population of Manokotak in 2002 was 404 residents, with a median age of 21. The community economy is based on trapping, fishing, and other subsistence activities. Local government consists of a mayor and a seven-member village council (Alaska Department of Community and Economic Development [ADCED], 2002).

Village utilities include a piped water and sewer system constructed in 1972 and a central generator that provides electricity to the village and outlying subdivisions. Waste generated in the village is received by a single, open landfill.

Recent capital projects in the village have included construction of a Housing and Urban Development (HUD) subdivision and a new school. The Manokotak Heights subdivision was built approximately 4 miles south of the townsite in 2000 and consists of 24 single-family units. The new school was built in 2001-2002 directly northwest of Manokotak Heights. Future

projects may include construction of a boat dock at the Weary River and relocation of the landfill.

Three airport alternatives and three possible material sites have been identified for the airport improvement project. Locations of the proposed alternatives and material sources are shown in Figure 1, Vicinity and Location Map, and Figure 2, Site Map.

The proposed airport alternatives are as follows:

- E1: Extension and resurfacing of the airstrip in its present location, relocation of the existing apron, and extension of the existing access road
- R1A: Relocation of the airport approximately 1 mile southeast of Manokotak Heights and construction of an access road from the Weary River Road
- R3: Relocation of the airport approximately 2.5 miles south-southeast of Manokotak Heights and construction of an access road from the Weary River Road

The three possible material sites are as follows:

- The existing material site approximately 1.5 miles east of the village landfill located on the loop road off the Manokotak Heights Spur Road.
- The existing material site approximately 1 mile northeast of Manokotak Heights on the Weary River Road.
- The potential material site along the prominent ridge south of the Alternative R1A airstrip.

3.0 RESULTS

3.1 Location and Land Ownership

Land ownership for the project alternatives and material sites is split by surface and subsurface rights. Unless otherwise noted, the village corporation, Manokotak Natives Limited (MNL), owns the surface rights, and the regional corporation, Bristol Bay Native Corporation (BBNC) owns the subsurface rights.

Alternative E1 is within Sections 1 and 12 of Township 14 South, Range 59 West, Seward Meridian and Section 36 of Township 13 South, Range 59 West, Seward Meridian. As proposed, Alternative E1 is contained by Airport Lease Tracts I, II, III, and IV. The southern portion of the alternative lies within Tract C of U.S.S. 4875 Manokotak Federal Townsite. The ADOT&PF owns the surface and subsurface estates comprising Airport Tract I. The surface estate for Airport Tracts II and IV is held by the ADOT&PF; however, ownership of Tract IV will revert to MNL when the land ceases to be used for airport purposes. The BBNC holds the subsurface rights to Airport Lease Tracts II and IV. The surface and subsurface rights to Airport Lease Tract III are held by MNL and the BBNC, respectively; however, the ADOT&PF has retained a surface Avigation and Hazard Easement to Airport Lease Tract III.

Alternative R1A is within Sections 14, 15, and 22 of Township 14 South, Range 58 West, Seward Meridian.

Alternative R3 is within Section 26 of Township 14 South, Range 58 West, Seward Meridian; a portion of this alternative extends to Section 35 of the same township.

The existing material site on the loop road off the Manokotak Heights Spur Road is within Section 7 of Township 14 South, Range 58 West, Seward Meridian.

The existing material site on the Weary River Road is within Section 10 of Township 14 South, Range 58 West, Seward Meridian.

The potential material site identified as the prominent ridge south of Alternative R1A is contained by Sections 14, 15, and 23 of Township 14 South, Range 58 West, Seward Meridian.

3.2 Physical Setting

Manokotak is situated within the Western Alaska Coastal Plain and Deltas physiographic province. The province is characterized by the irregular topography with little relief, typical of a post-glacial area. The geology of the area is molded by a combination of glacial and alluvial regimes. Mineral soils range from silt to gravel. Where glacially deposited these sediments exhibit weak lateral and vertical grading. Conversely, mineral soils redeposited by alluvial systems show strong patterns of gradation. Organic soils in the Manokotak vicinity have been described as histic pergelic cryaquepts, pergelic cryofibrists, pergelic cryaquepts, and pergelic sideric cryaquods and typically accumulate in poorly drained depressions (Rieger et al., 1979). Manokotak is in the discontinuous permafrost zone. In permafrost areas, fine-grained, saturated soils may produce periglacial features such as hummocks, frost boils, and ice wedges. Bedrock outcrops are evident uphill from town and along the Manokotak Heights Spur Road.

The vegetation types surrounding Manokotak are a mixture of moist tundra and upland mixed woodland forest (Viereck et al., 1992). Vegetation types found in the moist tundra include mosses, lichens, grasses, sedges (*Carex* spp.), willows (*Salix* spp.), dwarf birch (*Betula nana*),

Labrador tea (*Ledum palustre*), crowberry (*Empetrum nigrum*), and bog blueberry (*Vaccinium uliginosum*). The upland mixed forest areas occur on well drained soils and consist of white spruce (*Picea glauca*), paper birch (*Betula papyrifera*), quaking aspen (*Populus tremuloides*), and cottonwood (*Populus balsamifera*). Willows, including Bebb's willow (*Salix bebbiana*) and diamond-leaf willow (*Salix planifolia*) are common shrubs at upland sites.

The predominant climatic influence in Manokotak is maritime; however, arctic affects extend from the interior region. Manokotak's location in the transitional zone causes frequent periods of reduced visibility resulting from fog. Fog occurs in the summer when the air contains the most moisture and is warmer than the sea and in winter when the onshore flow of moist air meets colder landmass air. Coastal effects subject Manokotak to high-velocity winds, particularly during May and June (ADCED, 2003).

3.3 Field Reconnaissance

A site reconnaissance was performed between September 1 and 5, 2003, to evaluate the potential presence of hazardous materials or petroleum contamination within the project area. MACTEC personnel walked the perimeter of the existing airstrip, apron, and access road; the developed material sites; and adjoining lands. Using a Trimble XM handheld GPS unit, field personnel also walked the approximate centerlines of airstrips, aprons and access roads proposed under Alternatives R1A and R3. The possible material source area south of Alternative R1A was also investigated on foot. The project area was inspected for recognized environmental conditions. Data sheets documenting the general environmental conditions of each site were completed at the north and south ends of the existing airstrip and at each proposed airstrip location. Copies of

the completed data sheets and pertinent photographs are provided in Appendices A and B, respectively. Data sheet and photograph locations are shown in Figure 2, Site Map.

The property at Alternative E1 is currently used as an airport. A storage shed housing airport maintenance equipment and two 500-gallon drums of diesel fuel is located at the existing apron. The storage shed is the only structure present at the existing airport. Power is supplied to the storage shed by underground lines; the shed floor is gravel. Loui Alakayak, who is in charge of equipment maintenance for Manokotak, reports small areas of oil-stained gravel on the storage shed floor resulting from incidental drips during oil changes. Mr. Alakayak did not report any stains associated with the diesel tanks (Alakayak, 2003, pers. comm.). The areas of oil-stained gravel are not likely to present a material risk of harm to public health or the environment and were dismissed from consideration as *de minimis* conditions.

During the course of the site visit, the apron was observed to be used to tie down planes, as a staging area for incoming and outgoing goods, and for limited gravel storage. Two 55-gallon drums were discovered partially buried in the western fill bank at the southern end of the runway. Photographs of the drums are provided in Appendix B. The integrity of the drums appeared to be compromised and for this reason they did not likely contain any liquid or material; soil staining was not evident around the drums. The drums are not likely to present a material risk of harm to public health or the environment and were dismissed from consideration as *de minimis* conditions.

Property to the south of the airport is developed for residential, governmental, and commercial use. An Army National Guard Building is situated along the airport access road approximately 400 feet from the southern terminus of the airstrip. Several private homes and the Moravian

Church are within 1,000 feet of the airstrip. An outdoor storage container for hazardous materials was observed on the Army National Guard grounds. The container appeared to be in good condition; it is not known if the container is in active use (Alaska Department of Environmental Conservation [ADEC], 2003).

Bulk fuel is stored in multiple aboveground storage tanks (ASTs) on both the Army National Guard and the Moravian Church properties; total storage capacities are 1,500 gallons and 2,700 gallons, respectively. Ninety percent of households in Manokotak are heated by fuel oil contained in small ASTs (approximate 300-gallon capacity). A photograph of a typical heating oil AST is shown in Appendix B. Fuel storage tanks at the Army National Guard Building and Moravian Church appeared to be in good condition, with no sign of fuel leakage; ASTs at private residences were not inspected.

With the exception of a few all terrain vehicle (ATV) trails, land adjoining the existing airport to the north, east, and west is undeveloped and in its natural state. Extension of the existing runway and access road and apron relocation would affect undeveloped land only.

Alternatives R1A and R3 are situated on and adjoin undeveloped land in its natural state. No environmental conditions were recognized at alternatives R1A or R3 during the field reconnaissance.

The potential material source areas on the loop road off the Manokotak Spur Road and on the Weary River Road are currently mined for gravel. There were no indications of alternative land use, such as significant dumping of trash, at either gravel pit. With the exception of the access roads, adjoining land is undeveloped and in its natural state. The potential material site south of Alternative R1A is also undeveloped and surrounded by undeveloped land; all land comprising

and surrounding the ridge site is in a natural state. No environmental conditions were recognized at the existing material sites or the potential material site during the field reconnaissance.

3.4 Previous Environmental Investigations

No records of previous environmental investigations for the subject parcels or adjoining land were identified or provided for review.

3.5 Records Review

The single historical use of the existing airport and the undeveloped nature of the alternative airport locations and existing material sites precluded the necessity of a land title record search.

The federal and state environmental records specified in ASTM E 1527-00 were reviewed to identify sites of environmental concern occurring in the vicinity of the project area. The ADEC maintains an inventory of spills and contaminated sites. A search of the Contaminated Sites Database conducted in November 2003 identified the former Manokotak School as a state hazardous waste site. Review of Oil Spill Response Summaries compiled by the ADEC returned information on a recent fuel spill at the village tank farm.

An more extensive query of federal and state standard environmental records was conducted in October 2003 by Environmental Data Resources, Inc. (EDR), in support of this investigation. A copy of the database report is provided in Appendix C. EDR search results identified three sites of potential concern in the vicinity of the existing Manokotak airstrip. However, only one of these sites, the former Manokotak School site, occurs within the minimum search distance as measured from the nearest alternative boundary, to the nearest site of environmental concern. No environmental conditions were reported as occurring within the boundaries of the project area.

The former Manokotak School is identified as a high priority state hazardous waste site and is located within 1 mile of the existing airport. Numerous historical spills of petroleum products have occurred at the former school and the former tank farm adjacent to and to the northeast of the school. The most recent spill occurred in 1994 when approximately 125 gallons of diesel fuel was spilled, with approximately 110 gallons recovered. The school crawl space was affected by the release. A limited site assessment conducted in 1998 found contamination of soil and groundwater by diesel-range organics above cleanup levels; however, the number of samples was limited and the extent and volume of contaminated soils may not be entirely assessed (ADEC, 2003). Spills at the former Manokotak School are unlikely to affect Alternative E1 because of the ages of the spills, distance from the project area, and the hydrologically/topographically downgradient location of the spills.

The town power plant/tank farm facility, situated approximately 1,600 feet south of the existing airstrip, is listed in the Alaska Spills database. The required minimum search distance for sites listed in the Alaska Spills database does not extend beyond the boundaries of the target property and thus the power plant/tank farm facility is outside the required search distance.

Approximately 2,164 gallons of diesel fuel was released to the ground at the tank farm on March 19, 2002, when the relay switch to the transfer pump on a 75-gallon day tank was stuck in the open position. Total fuel recovery estimated by the contractor in charge of site cleanup is 2,220 gallons. The estimated volume of fuel recovered exceeds the estimated volume spilled, suggesting one or both of these values is incorrect. Impacts to the underlying soil and surface water of the nearby creek and the Igushik River were reported. Site characterization and cleanup efforts are ongoing. Despite the volume of fuel spilled at the tank farm, contamination is not

likely to adversely affect Alternative E1 because of the hydrologically/topographically downgradient location of the spill.

The EDR search reported the Manokotak landfill as listed in both the Solid Waste Facility and the Alaska Spills databases. The minimum search distance required for Solid Waste Facilities is 1/2 mile; sites listed in the Alaska Spills database must occur within the boundaries of the target property to be located within the minimum search distance. The Manokotak landfill is approximately 3/4 mile south of Alternative E1 and is thus outside both required search distances. A listing in the Solid Waste Facility database indicates the dump failed to meet Resource Conservation and Recovery Act (RCRA) Subtitle D Section 4004 criteria, which specifically prohibit the open dumping of waste. The Manokotak landfill is classified in state records as an active, unpermitted, Class 3 landfill. Reconnaissance of the site revealed the solid waste facility to be located in a fenced natural depression. Dumping appeared to be uncontrolled, and access was not restricted at the time of visit. Additional information on the nature and volume of spill(s) at the landfill was not reasonably ascertainable. Similar to the previous sites of environmental concern, the landfill does not present a threat to any of the alternatives or material source areas proposed for this project because of its downgradient location.

The village public water supply well is reported to be within 0.5 mile of the existing airport and upgradient of the tank farm spill; the well location was not confirmed during the site reconnaissance. No health-based violations are reported for this well; however, numerous notices of violation and enforcement actions have been issued because of failure to complete routine monitoring.

3.6 Aerial Photography Review

The single use of the existing airport and the undeveloped nature of the alternative airport locations and existing and potential material sites precluded the necessity to review a historical aerial photograph sequence. A mosaic of aerial photographs dated 2001 and 2003 were reviewed for potential environmental conditions. Aerial photographs did not indicate alternative land use or the presence of any adverse environmental conditions.

3.7 Physical Setting Source(s)

The elevation of Manokotak is approximately 15 feet above mean sea level (msl) and is situated at the foot of a hill rising to approximately 850 feet east of town. The ground surface contours presented in U.S. Geological Survey quad topographic maps of Manokotak suggest a westerly groundwater flow direction at the existing airport site; however, local groundwater contours are likely influenced by the Igushik River, which flows south through Manokotak. The combination of westward-sloping topography and the southward draining Igushik River basin likely induce a southwesterly direction of groundwater flow at the existing airport site. It is assumed the groundwater flow direction at Alternatives R1A and R3 parallels the topographic slope to the southwest.

The dominant Soil Conservation Service soil type at the existing airport is reported as Histic Pergelic Cryaquepts, which are essentially peat-like soils formed in a cold and water-saturated environment. Silt loam is also reported as present. Discontinuous permafrost reportedly underlies the highly organic soils.

Air quality in Manokotak is not significantly affected by radon. The U.S. Environmental Protection Agency radon survey indicates the average indoor radon level is less than 2 picocuries per liter (pCi/L) in Manokotak; this is the lowest range of radon concentration possible.

Flood zone, National Wetland Inventory, groundwater flow direction, groundwater velocity and geologic information was not found for the site by the EDR database query (EDR, 2003).

3.8 Interviews

An effort was made to interview individuals possessing actual knowledge of the sites in question during the site visit. Interview transcripts are included in Appendix D. The following local residents and government officials were interviewed at the Manokotak City Offices in person on September 3, 2003:

- Mike Gloko, City Council President, lifetime resident of Manokotak
- Edward Nick, City Administrator, resident of Manokotak for the past 6 years
- Nancy George, City Grant Writer, native of Manokotak, recently returned after 10 years in Kwigillingok

Karl Itumlrria of Manokotak Natives Limited was identified as the person in charge of airport maintenance; several attempts to contact Mr. Itumlrria were not successful.

No adverse environmental conditions were identified in the course of the interviews.

Interviewees indicated the land surrounding Alternatives E1, R1A, and R3 is primarily used for subsistence activities. Subsistence camps were previously located at the toe of the hill rising to the east of the existing airport, but this area was excavated in conjunction with airport

construction. The Boy Scouts or some other organization may have erected temporary structures in the same area before airport construction.

The area surrounding Alternatives R1A and R3 is primarily used for berry picking, wood gathering, ice fishing, and beaver trapping. A secondary winter route to Dillingham transects this area; however, most residents travel the Manokotak Trail, located farther inland to the north. Because of the type of permafrost present south of Alternative R3, residents predict significant subsidence if this permafrost layer is degraded during construction. The geotechnical investigation conducted in support of the Manokotak Airport Improvements did not encounter frozen ground above 15 feet in any test hole drilled along the R3 centerline (Fritz, 2003).

The village landfill has never been in a different location. There is a feasibility study under way to examine the possibility of relocating the landfill to one of the existing gravel pits. However, neither pit is an ideal destination for the relocated landfill. The land surrounding the loop road gravel pit is used for berry picking and is a corridor for moose travel, and the Weary River Road gravel pit is the best material source in Manokotak. Additionally, if Alternative R1A were to be selected, relocation of the landfill to this site would violate the minimum separation distance required between a landfill and runway for prevention of wildlife hazards.

4.0 CONCLUSIONS AND RECOMMENDATIONS

MACTEC performed this Phase I Preliminary Site Investigation in conformance with the scope and limitations of Article B5.5.6.5 of the MACTEC/PDC contract agreement and ASTM Practice E 1527-00. The investigation addressed Alternatives E1, R1A, and R3 and the three possible material source areas described in Section 3.0. Any exceptions to, or deletions from, this practice are described in Section 5.0 of this report. This investigation has revealed no evidence of recognized environmental conditions in connection with the project area.

5.0 LIMITATIONS AND RESTRICTIONS

This Preliminary Phase I Site Investigation was restricted to the scope of services as described in Section 1.3. No field conditions limited the completeness of this site investigation. The following activities were excluded from the scope of services:

- Performing or acquiring a chain-of-title/record of historic ownership search
- Certifying the validity of information obtained from interviews
- Collecting or analyzing any sample of air, water, soil, flora, fauna, a building material, or any other substance

The preparers of this report have relied upon certain verbal information, representations, and documents provided by government, property owners and occupants, and a computer search of government databases by EDR. To the extent that the conclusions in this report are based in whole or in part on such information, they are contingent on its validity. The preparers assume no responsibility for any consequence arising from any information or condition that was concealed, withheld, misrepresented, or not fully disclosed or available to the preparers.

No representations or warranties are made concerning the nature or quality of the air, soil, water, building materials, or any other substance on any property, other than the visual observations and documented conditions as stated in this report. Furthermore, environmental conditions may exist in the project area that could not be identified by visual observations. MACTEC's Preliminary Phase I Site Investigation should not be construed to mean that there are no hazardous materials,

but that MACTEC's observations and the examination of records did not disclose the presence or likely presence of hazardous materials except as indicated in this report. MACTEC is not responsible for changing conditions that may alter the findings of this Phase I Site Investigation.

Within the limitations of the agreed-upon scope of services, this assessment has been undertaken and performed in a professional manner, in accordance with generally accepted practices, using the degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, express or implied, is made. No other party should rely on the information contained herein without MACTEC's prior written consent.

6.0 REFERENCES

Alakayak, L. 2003. City of Manokotak, Manokotak, Alaska. Telephone communication with Brandon Miner, MACTEC, Inc., November 24.

Alaska Department of Community and Economic Development. 2003. Alaska Community Databases – Manokotak. [Online] Available <http://www.dced.state.ak.us>, August 2002.

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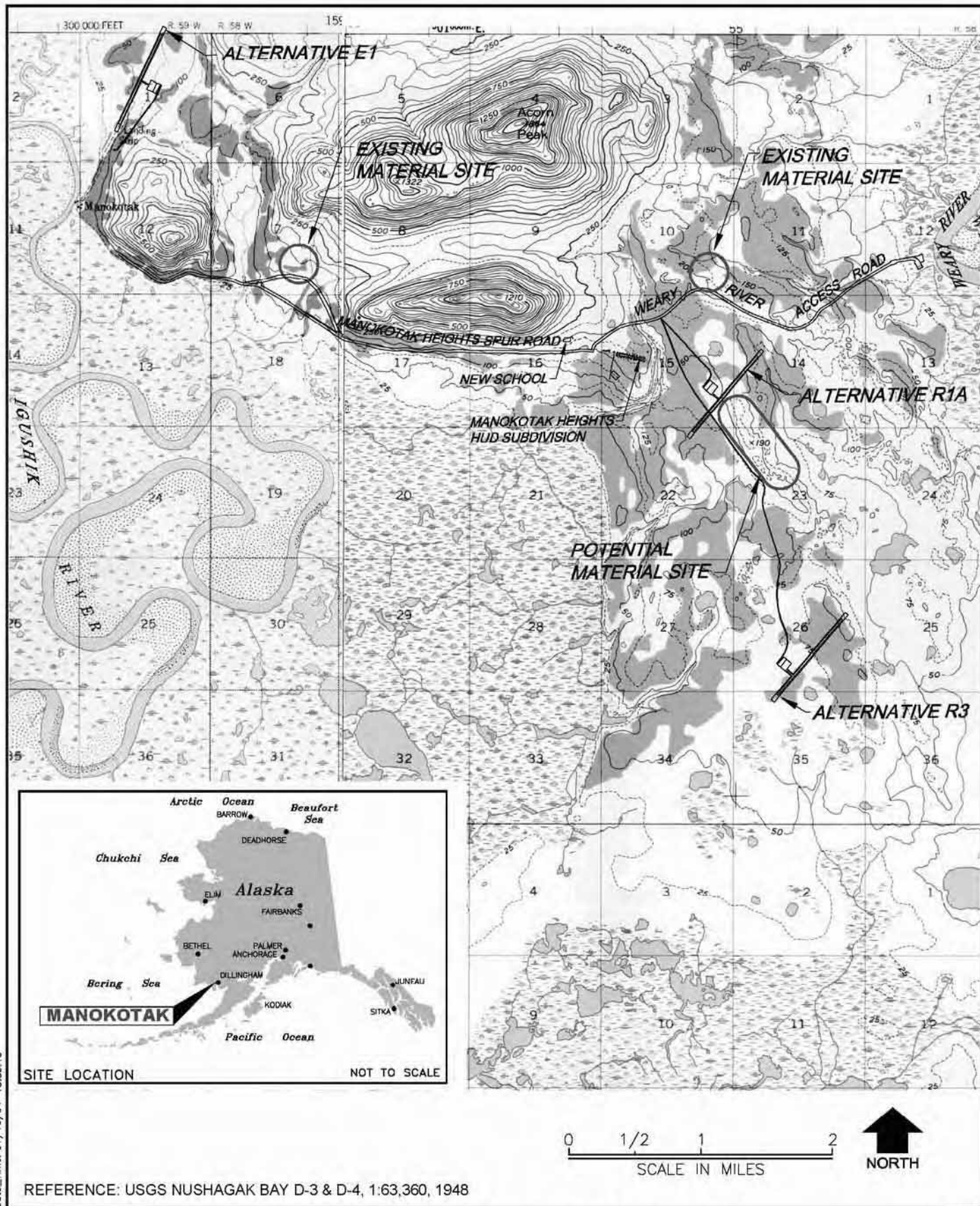
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Viereck, L.A., C.T. Dryness, A.R. Batten, and K.J. Wenzlick. 1992. *The Alaska vegetation classification*. General Technical Report PNW-GTR-286. Portland, Oregon: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.

FIGURES



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MACTEC
 Engineering and Consulting, Inc.

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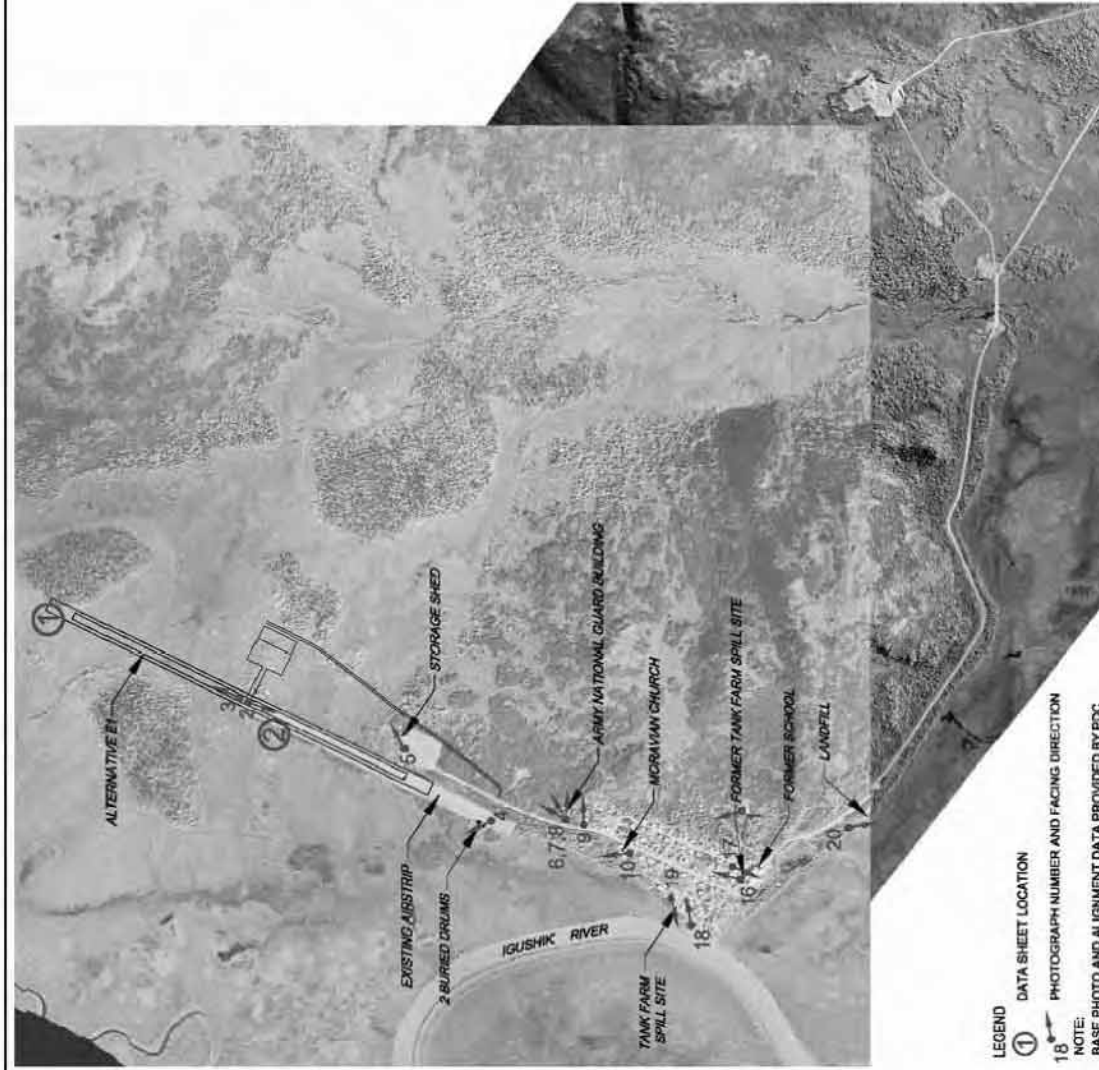
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Vicinity and Location Map

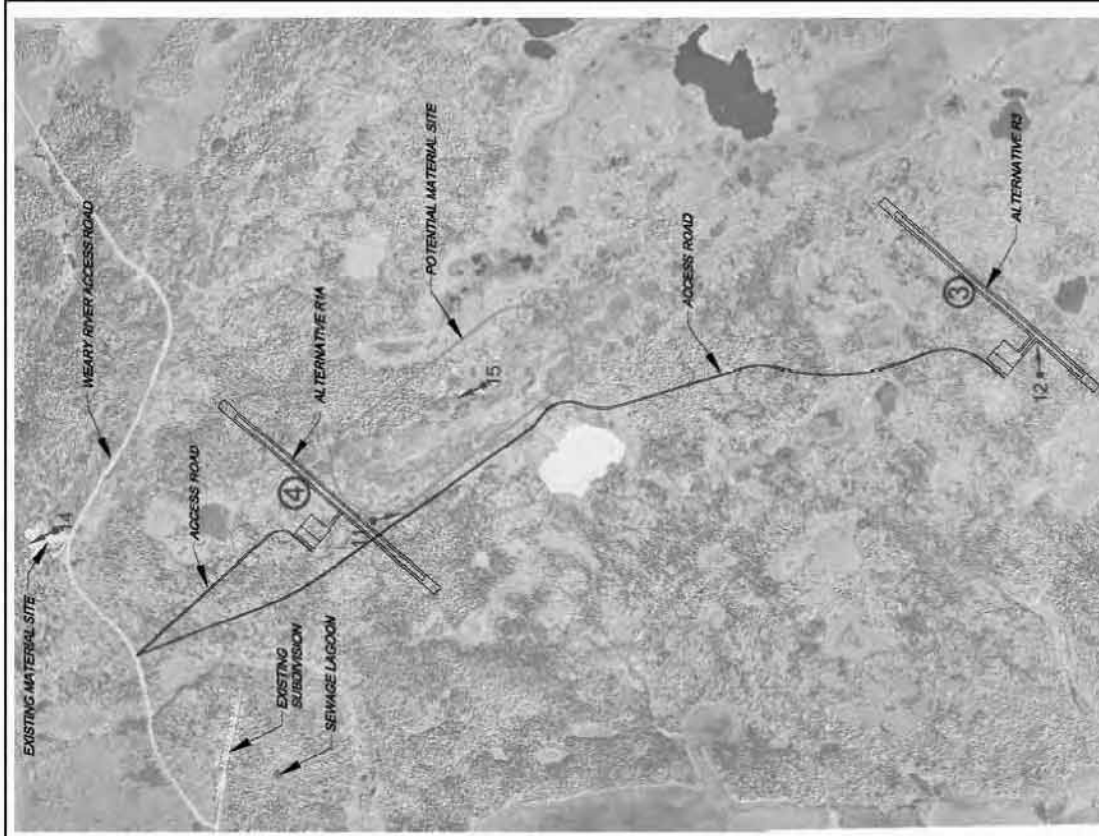
Manokotak Airport Improvements
 Phase I Preliminary Site Investigation
 Manokotak, Alaska

FIGURE

1



LEGEND
 ① DATA SHEET LOCATION
 18 PHOTOGRAPH NUMBER AND FACING DIRECTION
 NOTE:
 BASE PHOTO AND ALIGNMENT DATA PROVIDED BY POC



SCALE: 1" = 2000'

SCALE: 1" = 1350'



Site Map



MACTEC
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Manokotak Airport Improvements
 Phase I Preliminary Site Investigation
 Manokotak, Alaska

DATE
 1/2004

PROJECT NUMBER
 55343

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APPENDIX A

DATA SHEETS

Nota 54-c-1 (1)

Name of Establishment:	Manokotak Airport Alternative E1.
Location/GPS:	N end of proposed Airstrip E2 Lat: 59° 05' 00.191" Long -159° 02' 27.778"
Address:	n/a
Owners Name/Address:	
Use of Property:	undeveloped
Use of Adjacent Property	undeveloped

	Yes	No	N/A	Comments
Buildings/Structures Present		X		
Inside of Buildings Checked			X	
Discolored or Disturbed Soils Present	X			some ATV tracks
Mounding or Piles of Soils Present		X		
Depressions Present		X		
Fill Areas Present		X		
Debris Present		X		
Lagoons, Surface Impoundments Present	X			Wetland
Asbestos Containing Materials Evident		X		
Hazardous Substances/Wastes Present		X		
Visible Contamination Present		X		
Spill Sites Evident		X		
Stressed Vegetation Evident		X		
Discolored Water Evident	X			not due to contamination - tanning
Transformers/Other Source of PCBs Present		X		
Unusual or Noxious Odors Evident		X		
Monitoring wells or Water Wells Present		X		
Drums/Chemical Present		X		
USTs Present		X		
ASTs Present		X		
Chemical/Hazardous Material Use Evident		X		
Process Tank Present		X		
Waste Treatment System Evident		X		
Drains/Storm Water Systems Present		X		
Sewer Lines Evident		X		
Septic Tanks Evident		X		
Pits/Sumps/Manholes/Catch Basins Present		X		
Wetlands Ponds or Lakes Present	X			see M3 plat.
Date of Field Visit:	9/1/05			
Inspector:	Lindsay Flanagan			
Weather Conditions:	cloudy ~ 45°F			
Inaccessible Areas:	none			
Photograph Number:	R2P1 overview facing N			
	R2P2 overview facing E			
	R2P3 overview facing S			
	R2P4 overview facing W			

Name	Association w/ Property	Comments

PHASE I SITE INVESTIGATION
Manokotak Airport

Data Sheet (2)

GENERAL INFORMATION

Name of Establishment:	Manokotak Airport + Alternative G1		
Location/GPS:	S end of proposed Airstrip G2 lat: 58°59'19.093" long: -159°03'04.766"		
Address:			
Owners Name/Address:			
Use of Property:	existing airstrip		
Use of Adjacent Property:	NNE: airstrip E: Apron SSW: airstrip W: undeveloped S: Army National Guard Bldg		

FIELD RECONNAISSANCE

	Yes	No	N/A	Comments
Buildings/Structures Present	X			Snow Removal Equipt. Storage Bldg. adj to E
Inside of Buildings Checked		X		
Discolored or Disturbed Soils Present		X		Some ATV tracks
Mounding or Piles of Soils Present	X			related to airstrip construction & earthwork
Depressions Present	X			ditches run N to airstrip
Fill Areas Present	X			airstrip + apron
Debris Present	X			excavated area
Lagoons, Surface Impoundments Present	X			in ditches N to airstrip
Asbestos Containing Materials Evident		X		
Hazardous Substances/Wastes Present		X		
Visible Contamination Present		X		
Spill Sites Evident		X		
Stressed Vegetation Evident		X		
Discolored Water Evident		X		
Transformers/Other Source of PCBs Present		X		
Unusual or Noxious Odors Evident		X		
Monitoring wells or Water Wells Present		X		
Drums/Chemical Present		X		
USTs Present		X		
ASTs Present		X		
Chemical/Hazardous Material Use Evident		X		
Process Tank Present		X		
Waste Treatment System Evident		X		
Drains/Storm Water Systems Present	X			Some culverts N to airstrip
Sewer Lines Evident		X		
Septic Tanks Evident		X		
Pits/Sumps/Manholes/Catch Basins Present		X		
Wetlands Ponds or Lakes Present	X			land adj to N, S and W is Wetland → see
Utilities	X			buried power line to storage shed
				Diectectric find is Non-PCB
				has not been mined recently
Date of Field Visit:	9/1/03			
Inspector:	Lindsey Flackstad			
Weather Conditions:	Partly Cloudy ~ 50°F			
Inaccessible Areas:	None			
Photograph Number:	R2 P5 overview facing E R2 P6 overview facing S R2 P7 overview facing W R2 P8 overview facing W R2 P9 Storage shed facing SW R2 P10 Electric Box R2 P11 Storage Shed facing NE R2 P12 Gravel Storage in Storage area of apron R2 P16 Gravel Pit facing E R2 P17 " " facing N R4 P4 buried drum			

INTERVIEWS

Name	Association w/ Property	Comments

PHASE I SITE INVESTIGATION
Manokotak Airport

Data Sheet (3)

GENERAL INFORMATION

Name of Establishment:	Manokotak Airport Improvements and relocation Alternative R3		
Location/GPS:	Airstrip and Access Road	Start of Access Road	lat: 58°58'05.960"
Address:			long: -158°56'07.616"
Owners Name/Address:	End of Access Road @ apron lat: 58°55'49.159"		
Use of Property:	undeveloped		long: -158°54'38.554"
Use of Adjacent Property	undeveloped*	SW end of airstrip	lat: 58°55'34.341"
			long: -158°54'41.281"

FIELD RECONNAISSANCE

NE end of airstrip lat: 58°56'08.939" long: -158°53'44.676"

	Yes	No	N/A	Comments
Buildings/Structures Present		X		
Inside of Buildings Checked			X	
Discolored or Disturbed Soils Present		X		
Mounding or Piles of Soils Present		X		
Depressions Present	X			natural features
Fill Areas Present		X		
Debris Present		X		
Lagoons, Surface Impoundments Present	X			natural wetland + lacustrine features
Asbestos Containing Materials Evident		X		
Hazardous Substances/Wastes Present		X		
Visible Contamination Present		X		
Spill Sites Evident		X		
Stressed Vegetation Evident	X			not due to contamination - very dry conditions
Discolored Water Evident		X		
Transformers/Other Source of PCBs Present		X		
Unusual or Noxious Odors Evident		X		
Monitoring wells or Water Wells Present		X		
Drums/Chemical Present		X		
USTs Present		X		
ASTs Present		X		
Chemical/Hazardous Material Use Evident		X		
Process Tank Present		X		
Waste Treatment System Evident		X		
Drains/Storm Water Systems Present		X		
Sewer Lines Evident		X		
Septic Tanks Evident		X		
Pits/Sumps/Manholes/Catch Basins Present		X		
Wetlands Ponds or Lakes Present	X			see accompanying wetland survey, aerial photos
Date of Field Visit:	9/2/03 - 9/4/03			
Inspector:	Lindsey Fladstad			
Weather Conditions:	Clear ~ 50°F			
Inaccessible Areas:	none			
Photograph Number:	Rolls: 3, 4 and 5 see photo log for photo numbers			
* property adjacent to north is a gravel road corridor - no environmental conditions recognized in this area.				

INTERVIEWS

Name	Association w/ Property	Comments

Manokotak Airport

DATA SHEET (4)

GENERAL INFORMATION

Name of Establishment:	Manakotale Airport Improvements and Relocation Alternative 1C1
Location/GPS:	Airstrip and Access Road Start of Access Road: lat: 58°58'05.960"
Address:	long: 158°56'07.616"
Owners Name/Address:	End of Access Road: lat: 58°57'29.099"
Use of Property:	undveloped long: 158°55'48.614"
Use of Adjacent Property	undveloped* SW end of airstrip lat: 58°57'18.439"
	long: 158°55'46.087"

FIELD RECONNAISSANCE

NE end of airstrip lat: 58°57'53.045" long: 158°54'49.493"		
N/A		

	Yes	No	N/A	Comments
Buildings/Structures Present		X		
Inside of Buildings Checked			X	
Discolored or Disturbed Soils Present		X		
Mounding or Piles of Soils Present		X		
Depressions Present	X			natural features
Fill Areas Present		X		
Debris Present		X		
Lagoons, Surface Impoundments Present	X			natural wetland and lacustrine features
Asbestos Containing Materials Evident		X		
Hazardous Substances/Wastes Present		X		
Visible Contamination Present		X		
Spill Sites Evident		X		
Stressed Vegetation Evident	X			not due to contamination - v. dry conditions
Discolored Water Evident		X		
Transformers/Other Source of PCBs Present		X		
Unusual or Noxious Odors Evident		X		
Monitoring wells or Water Wells Present		X		
Drums/Chemical Present		X		
USTs Present		X		
ASTs Present		X		
Chemical/Hazardous Material Use Evident		X		
Process Tank Present		X		
Waste Treatment System Evident		X		
Drains/Storm Water Systems Present		X		
Sewer Lines Evident		X		
Septic Tanks Evident		X		
Pits/Sumps/Manholes/Catch Basins Present		X		
Wetlands Ponds or Lakes Present	X			see accompanying wetland survey/aerial photos

Date of Field Visit:	9/2/03 - 9/5/03
----------------------	-----------------

Inspector:	Lindsey Fitzgerald
------------	--------------------

Weather Conditions:	Clear! ~50°F
---------------------	--------------

Inaccessible Areas:	none
---------------------	------

Photograph Number:	Rolls 3, 4 and 5 - see photo log for photo numbers
--------------------	--

* property adjacent to north is a gravel road corridor - no environmental conditions were recognized in this area.

Manokalan Heights subdivision and sewage lagoon are located approx. 1/4 mi minimum distance to the west of the R1 access road. A natural drainage separates the Subdivision and lagoon

INTERVIEWS from the access road. For this reason any environmental conditions associated with

Name	Association w/ Property	Comments

the subdivision or lagoon are not likely to affect elements of RI.

APPENDIX B

PHOTOGRAPHS



Photo 1. View of Manokotak and Igushik River from the water storage tank, facing northeast.
Note the village tank farm and Moravian Church in mid-ground.



Photo 2. Existing airstrip at Manokotak, facing south.



Photo 3. Proposed area of airport extension under Alternative E1, facing north.



Photo 4. Partially buried 55-gallon drum at the existing airstrip, facing northwest.



Photo 5. Storage Shed at the existing apron, facing northeast.



Photo 6. Army National Guard Building, facing northeast.



Photo 7. Aboveground storage tank at the Army National Guard Building, facing northeast.



Photo 8. Hazardous material storage container at the Army National Guard Building, facing north.



Photo 9. Typical residence and aboveground storage tank along existing airport access road, facing east.



Photo 10. Moravian Church and aboveground storage tanks, facing northwest.



Photo 11. Typical vegetation and topography at Alternative R1A, facing south.



Photo 12. Typical vegetation and topography at R3, facing west.



Photo 13. View of loop road gravel pit with Manokotak Heights Spur Road in distance, facing southeast.



Photo 14. View of Weary River Road gravel pit, facing northwest.



Photo 15. View from potential material source area along ridge, facing north.



Photo 16. State Hazardous Waste Site at the former tank farm adjacent to former Manokotak School, facing north.



Photo 17. Former Manokotak School, facing south.
Former tank farm adjoins to the right.



Photo 18. Manokotak Tank Farm, facing northeast.



Photo 19. Sorbent boom at Manokotak Tank Farm spill site, facing west.



Photo 20. Manokotak dump (state listed landfill/solid waste disposal facility), facing east.

APPENDIX C

REGULATORY RECORDS DOCUMENTATION



The EDR Radius Map with GeoCheck®

**Manokotak
Manokotak, AK
Manokotak, AK 99628**

Inquiry Number: 01068070.1r

October 20, 2003

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06890

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	6
Orphan Summary	7
Government Records Searched/Data Currency Tracking	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-7
Physical Setting Source Map Findings	A-8
Physical Setting Source Records Searched	A-32

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

MANOKOTAK, AK
MANOKOTAK, AK 99628

COORDINATES

Latitude (North): 58.989000 - 58° 59' 20.4"
Longitude (West): 159.050000 - 159° 3' 0.0"
Universal Transverse Mercator: Zone 4
UTM X (Meters): 497126.3
UTM Y (Meters): 6538619.5
Elevation: 29 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: N/A
Source: USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned
CORRACTS..... Corrective Action Report
RCRIS-TSD..... Resource Conservation and Recovery Information System
RCRIS-LQG..... Resource Conservation and Recovery Information System
RCRIS-SQG..... Resource Conservation and Recovery Information System
ERNS..... Emergency Response Notification System

STATE ASTM STANDARD

SWF/LF..... Solid Waste Facilities

EXECUTIVE SUMMARY

LUST	Leaking Underground Storage Tank Database
UST	Underground Storage Tank Database
INDIAN UST	Underground Storage Tanks on Indian Land
VCP	Voluntary Cleanup Program sites

FEDERAL ASTM SUPPLEMENTAL

CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
Delisted NPL	National Priority List Deletions
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report
HMIRS	Hazardous Materials Information Reporting System
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
NPL Liens	Federal Superfund Liens
PADS	PCB Activity Database System
DOD	Department of Defense Sites
US BROWNFIELDS	A Listing of Brownfields Sites
RAATS	RCRA Administrative Action Tracking System
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
SSTS	Section 7 Tracking Systems
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

AST	Regulated Aboveground Storage Tanks
AK Spills	Spills Database

BROWNFIELDS DATABASES

US BROWNFIELDS	A Listing of Brownfields Sites
Inst Control	Contaminated Sites with Institutional Controls
VCP	Voluntary Cleanup Program sites

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STATE ASTM STANDARD

SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with where cleanup will be paid for by potentially responsible parties.

A review of the SHWS list, as provided by EDR, has revealed that there is 1 SHWS site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
MANOKOTAK SCHOOL	SALMON STREET	1/2 - 1 SSE	1	6

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

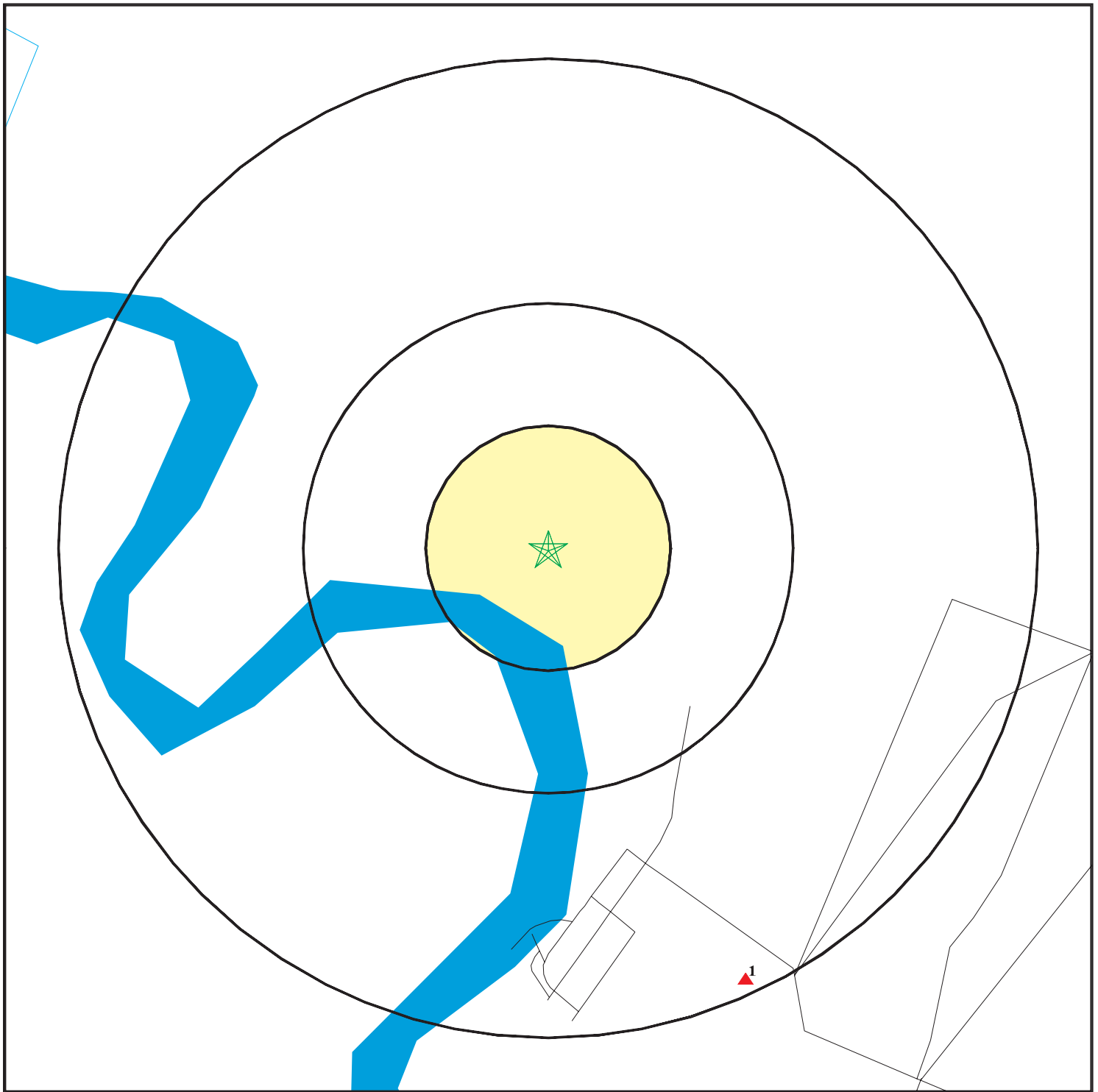
Site Name

MANOKOTAK
MANOKOTAK POWER PLANT IN VILLAGE

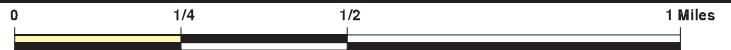
Database(s)

SWF/LF, AK Spills
AK Spills

OVERVIEW MAP - 01068070.1r - MACTEC, Inc.



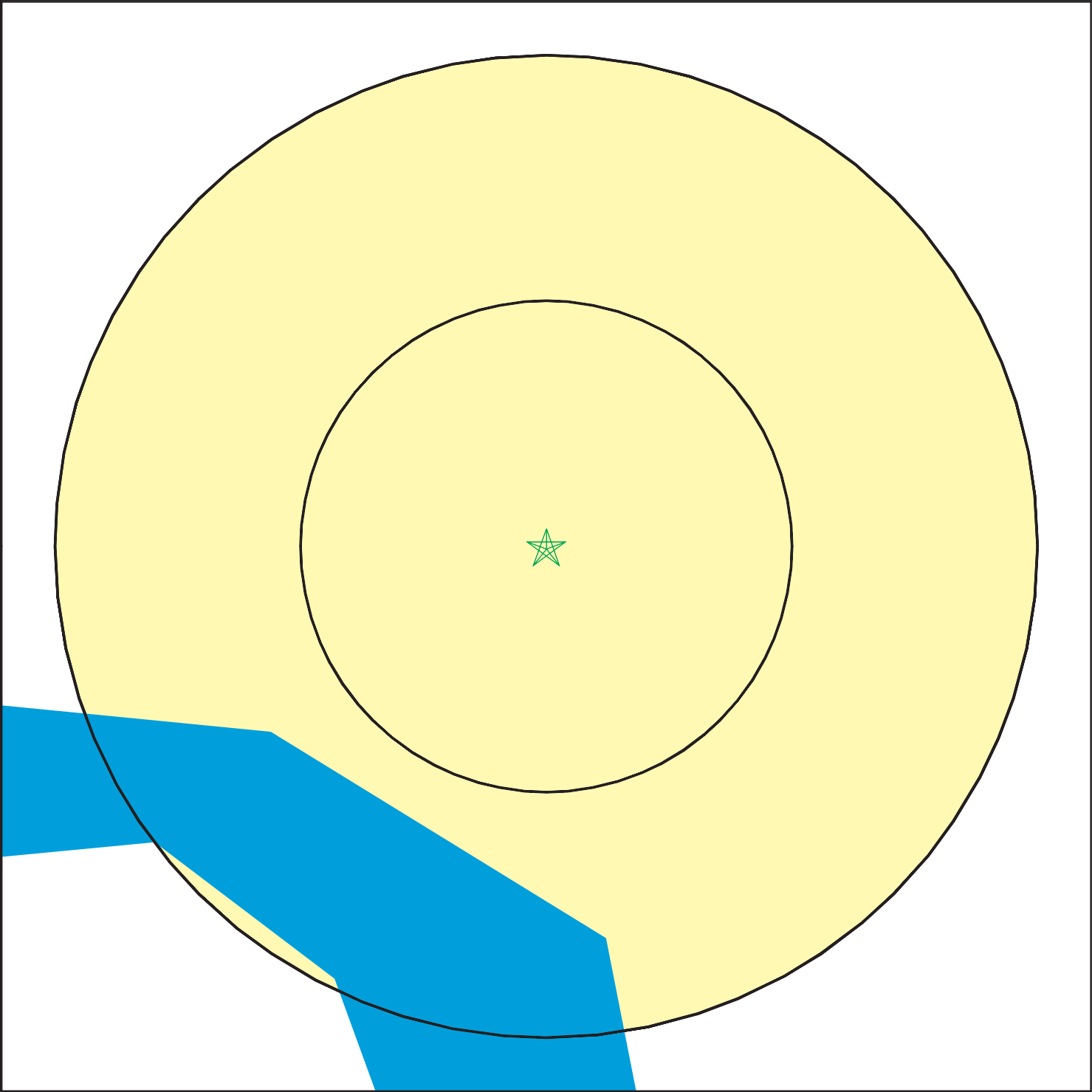
- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ☒ National Priority List Sites
- ☒ Landfill Sites
- ☒ Dept. Defense Sites



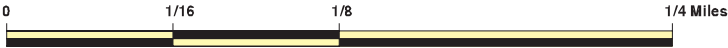
TARGET PROPERTY: Manokotak
ADDRESS: Manokotak, AK
CITY/STATE/ZIP: Manokotak AK 99628
LAT/LONG: 58.9890 / 159.0500

CUSTOMER: MACTEC, Inc.
CONTACT: Sasha Forland
INQUIRY #: 01068070.1r
DATE: October 20, 2003 8:07 pm

DETAIL MAP - 01068070.1r - MACTEC, Inc.



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ▲ Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites



TARGET PROPERTY: Manokotak
ADDRESS: Manokotak, AK
CITY/STATE/ZIP: Manokotak AK 99628
LAT/LONG: 58.9890 / 159.0500

CUSTOMER: MACTEC, Inc.
CONTACT: Sasha Forland
INQUIRY #: 01068070.1r
DATE: October 20, 2003 8:07 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>FEDERAL ASTM STANDARD</u>								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.250	0	0	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
RCRIS-TSD		0.500	0	0	0	NR	NR	0
RCRIS Lg. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRIS Sm. Quan. Gen.		0.250	0	0	NR	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
<u>STATE ASTM STANDARD</u>								
State Haz. Waste		1.000	0	0	0	1	NR	1
State Landfill		0.500	0	0	0	NR	NR	0
LUST		0.500	0	0	0	NR	NR	0
UST		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
<u>FEDERAL ASTM SUPPLEMENTAL</u>								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
<u>STATE OR LOCAL ASTM SUPPLEMENTAL</u>								
AST		TP	NR	NR	NR	NR	NR	0
AK Spills		TP	NR	NR	NR	NR	NR	0
<u>BROWNFIELDS DATABASES</u>								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Inst Control		0.250	0	0	NR	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0

NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

Coal Gas Site Search: EDR does not presently have coal gas site information available in this state.

1
SSE
1/2-1
5104 ft.

MANOKOTAK SCHOOL
SALMON STREET
MANOKOTAK, AK 99628

SHWS **S104893597**
N/A

Relative:
Higher

Actual:
777 ft.

SHWS:

Staff: Pikul, D.
File Number: 2611.38.001
Priority Type: High
Facility Status: Active
Internal Id No: 1994250135801

Comments : Numerous historical spills have occurred in the school area, including the adjacent tank farm where large fuel releases have been reported. Most recent spill occurred 12/24/1994 when approximately 125 gallons of diesel fuel spilled with approximately 110 gallons recovered. School crawl space was impacted by this release. ADEC conducted limited site assessment in 1998. Results did not find any soil concentrations above cleanup levels, however additional areas of contamination may exist at the facility.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MANOKOTAK	S105547398	MANOKOTAK POWER PLANT IN VILLAGE	MANOKOTAK POWER PLANT IN VILLAGE	99628	AK Spills
MANOKOTAK	S103578801	MANOKOTAK	MANOKOTAK POWER PLANT IN VIL		SWF/LF, AK Spills

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List

Source: EPA

Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/22/03

Date Made Active at EDR: 08/26/03

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 08/04/03

Elapsed ASTM days: 22

Date of Last EDR Contact: 08/04/03

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1

Telephone 617-918-1143

EPA Region 6

Telephone: 214-655-6659

EPA Region 3

Telephone 215-814-5418

EPA Region 8

Telephone: 303-312-6774

EPA Region 4

Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites

Source: EPA

Telephone: N/A

Date of Government Version: 06/10/03

Date Made Active at EDR: 08/26/03

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 08/04/03

Elapsed ASTM days: 22

Date of Last EDR Contact: 08/04/03

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 06/16/03

Date Made Active at EDR: 08/01/03

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 06/23/03

Elapsed ASTM days: 39

Date of Last EDR Contact: 09/24/03

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/11/03
Date Made Active at EDR: 08/01/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 06/23/03
Elapsed ASTM days: 39
Date of Last EDR Contact: 09/24/03

CORRACTS: Corrective Action Report

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 08/13/03
Date Made Active at EDR: 09/18/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 08/22/03
Elapsed ASTM days: 27
Date of Last EDR Contact: 09/08/03

RCRIS: Resource Conservation and Recovery Information System

Source: EPA

Telephone: 800-424-9346

Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/10/03
Date Made Active at EDR: 10/01/03
Database Release Frequency: Varies

Date of Data Arrival at EDR: 09/11/03
Elapsed ASTM days: 20
Date of Last EDR Contact: 09/11/03

ERNS: Emergency Response Notification System

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/02
Date Made Active at EDR: 02/03/03
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/03
Elapsed ASTM days: 7
Date of Last EDR Contact: 07/28/03

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System

Source: EPA/NTIS

Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/99
Database Release Frequency: Biennially

Date of Last EDR Contact: 10/01/03
Date of Next Scheduled EDR Contact: 12/15/03

CONSENT: Superfund (CERCLA) Consent Decrees

Source: EPA Regional Offices

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Source: EPA

Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/09/03

Database Release Frequency: Annually

Date of Last EDR Contact: 07/07/03

Date of Next Scheduled EDR Contact: 10/06/03

DELISTED NPL: National Priority List Deletions

Source: EPA

Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/22/03

Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/04/03

Date of Next Scheduled EDR Contact: 11/03/03

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report

Source: EPA

Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/25/03

Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/02/03

Date of Next Scheduled EDR Contact: 10/06/03

HMIRS: Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation

Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/31/03

Database Release Frequency: Annually

Date of Last EDR Contact: 07/23/03

Date of Next Scheduled EDR Contact: 10/20/03

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/16/03

Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/02/03

Date of Next Scheduled EDR Contact: 10/06/03

MINES: Mines Master Index File

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959

Date of Government Version: 06/07/03

Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/01/03

Date of Next Scheduled EDR Contact: 12/29/03

NPL LIENS: Federal Superfund Liens

Source: EPA

Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 08/25/03
Date of Next Scheduled EDR Contact: 11/24/03

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/30/03
Database Release Frequency: Annually

Date of Last EDR Contact: 08/13/03
Date of Next Scheduled EDR Contact: 11/10/03

DOD: Department of Defense Sites

Source: USGS

Telephone: 703-648-5920

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 04/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/15/03
Date of Next Scheduled EDR Contact: 11/10/03

US BROWNFIELDS: A Listing of Brownfields Sites

Source: Environmental Protection Agency

Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 07/15/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 09/15/03
Date of Next Scheduled EDR Contact: 12/15/03

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 09/08/03
Date of Next Scheduled EDR Contact: 12/08/03

TRIS: Toxic Chemical Release Inventory System

Source: EPA

Telephone: 202-260-1531

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01
Database Release Frequency: Annually

Date of Last EDR Contact: 09/23/03
Date of Next Scheduled EDR Contact: 12/22/03

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TSCA: Toxic Substances Control Act

Source: EPA

Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/98

Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 09/02/03

Date of Next Scheduled EDR Contact: 12/08/03

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA

Telephone: 202-564-2501

Date of Government Version: 08/21/03

Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/23/03

Date of Next Scheduled EDR Contact: 12/22/03

SSTS: Section 7 Tracking Systems

Source: EPA

Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01

Database Release Frequency: Annually

Date of Last EDR Contact: 07/24/03

Date of Next Scheduled EDR Contact: 10/20/03

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-564-2501

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/21/03

Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/23/03

Date of Next Scheduled EDR Contact: 12/22/03

STATE OF ALASKA ASTM STANDARD RECORDS

SHWS: Contaminated Sites Database

Source: Department of Environmental Conservation

Telephone: 907-269-7546

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 09/01/03

Date Made Active at EDR: 10/09/03

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 09/16/03

Elapsed ASTM days: 23

Date of Last EDR Contact: 09/15/03

SWF/LF: Solid Waste Facilities

Source: Department of Environmental Conservation

Telephone: 907-269-7632

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/03
Date Made Active at EDR: 05/08/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/28/03
Elapsed ASTM days: 10
Date of Last EDR Contact: 07/28/03

LUST: Leaking Underground Storage Tank Database

Source: Department of Environmental Conservation
Telephone: 907-465-5301

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/15/03
Date Made Active at EDR: 10/09/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 09/15/03
Elapsed ASTM days: 24
Date of Last EDR Contact: 09/15/03

UST: Underground Storage Tank Database

Source: Department of Environmental Conservation
Telephone: 907-269-7504

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/15/03
Date Made Active at EDR: 10/07/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 09/15/03
Elapsed ASTM days: 22
Date of Last EDR Contact: 09/15/03

INDIAN UST: Underground Storage Tanks on Indian Land

Source: EPA Region 10
Telephone: 206-553-2857

Date of Government Version: 10/07/03
Date Made Active at EDR: 10/17/03
Database Release Frequency: Varies

Date of Data Arrival at EDR: 10/07/03
Elapsed ASTM days: 10
Date of Last EDR Contact: 08/25/03

VCP: Voluntary Cleanup Program sites

Source: Department of Environmental Conservation
Telephone: 907-451-2182
Sites involved in the Voluntary Cleanup Program.

Date of Government Version: 09/17/03
Date Made Active at EDR: 10/09/03
Database Release Frequency: Varies

Date of Data Arrival at EDR: 09/17/03
Elapsed ASTM days: 22
Date of Last EDR Contact: 09/15/03

STATE OF ALASKA ASTM SUPPLEMENTAL RECORDS

AST: Regulated Aboveground Storage Tanks

Source: Department of Environmental Conservation
Telephone: 907-465-5231
Registered Aboveground Storage Tanks.

Date of Government Version: 05/01/01
Database Release Frequency: Varies

Date of Last EDR Contact: 09/17/03
Date of Next Scheduled EDR Contact: 12/15/03

SPILLS: Spills Database

Source: Department of Environmental Conservation
Telephone: 907-465-5242

Date of Government Version: 06/30/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/18/03
Date of Next Scheduled EDR Contact: 11/03/03

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

BROWNFIELDS DATABASES

Inst Control: Contaminated Sites with Institutional Controls

Source: Department of Environmental Conservation
Telephone: 907-269-3063
Contaminated sites that have institutional controls.

Date of Government Version: 09/17/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 09/15/03
Date of Next Scheduled EDR Contact: 12/15/03

VCP: Voluntary Cleanup Program Sites

Source: Department of Environmental Conservation
Telephone: 907-451-2182
Sites involved in the Voluntary Cleanup Program.

Date of Government Version: 09/17/03
Database Release Frequency: Varies

Date of Last EDR Contact: 09/15/03
Date of Next Scheduled EDR Contact: 12/15/03

US BROWNFIELDS: A Listing of Brownfields Sites

Source: Environmental Protection Agency
Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation

Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Facilities Database

Source: Department of Education & Early Development

Telephone: 907-465-2800

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

MANOKOTAK
MANOKOTAK, AK
MANOKOTAK, AK 99628

TARGET PROPERTY COORDINATES

Latitude (North):	58.988998 - 58° 59' 20.4"
Longitude (West):	159.050003 - 159° 3' 0.0"
Universal Transverse Mercator:	Zone 4
UTM X (Meters):	497126.3
UTM Y (Meters):	6538619.5
Elevation:	29 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

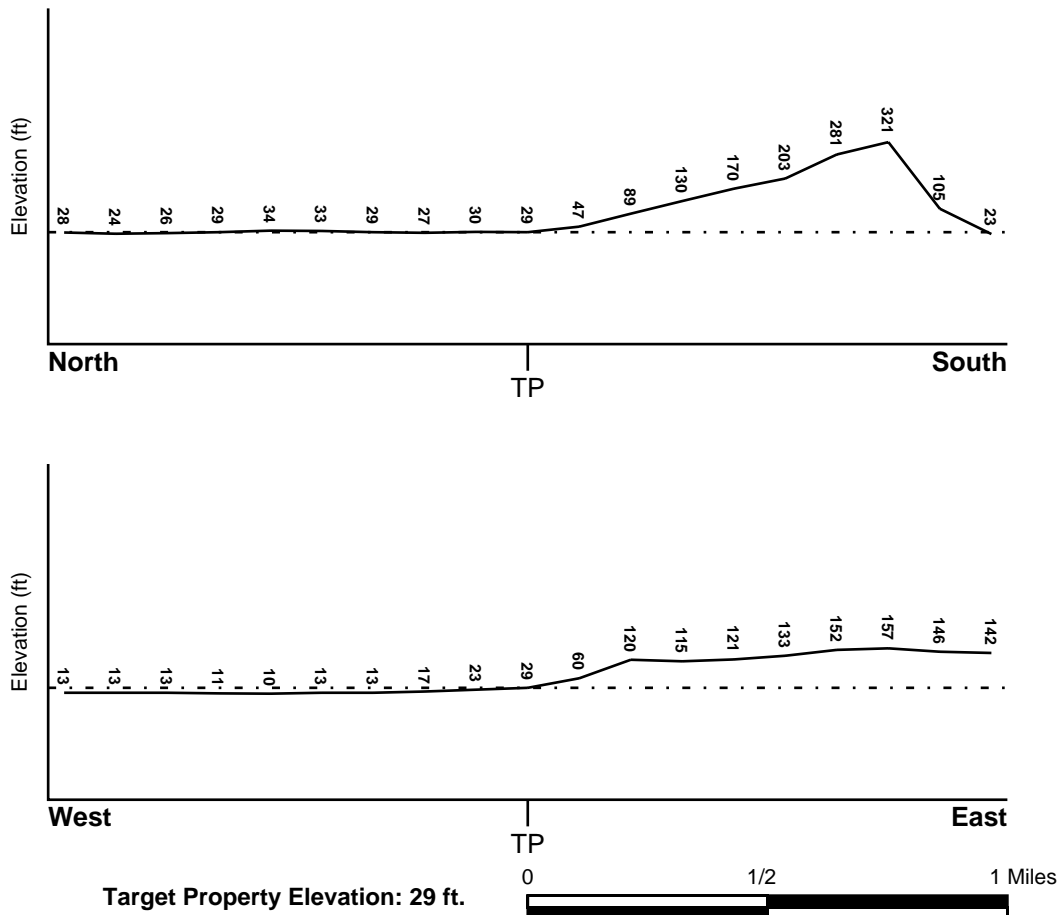
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map: N/A
General Topographic Gradient: General WNW
Source: USGS 7.5 min quad index

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Target Property County</u>	<u>FEMA Flood</u>
DILLINGHAM, AK	<u>Electronic Data</u>
	Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic</u>
Not Reported	<u>Data Coverage</u>
	N

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION</u>	<u>GENERAL DIRECTION</u>
Not Reported	<u>FROM TP</u>	<u>GROUNDWATER FLOW</u>

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era: -
System: -
Series: -
Code: N/A (decoded above as Era, System & Series)

GEOLOGIC AGE IDENTIFICATION

Category: -

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: HISTIC PERGELIC CRYAQUEPTS

Soil Surface Texture: peat

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly. Soils may have a saturated zone, a layer of low hydraulic conductivity, or seepage. Depth to water table is less than 1 foot.

Hydric Status: Soil meets the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	8 inches	0 inches	peat	A-8	Highly organic soils, Peat.	Max: 2.00 Min: 0.60	Max: 5.00 Min: 4.50
2	9 inches	60 inches	ice or frozen soil	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: silt loam

Surficial Soil Types: silt loam

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: No Other Soil Types

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

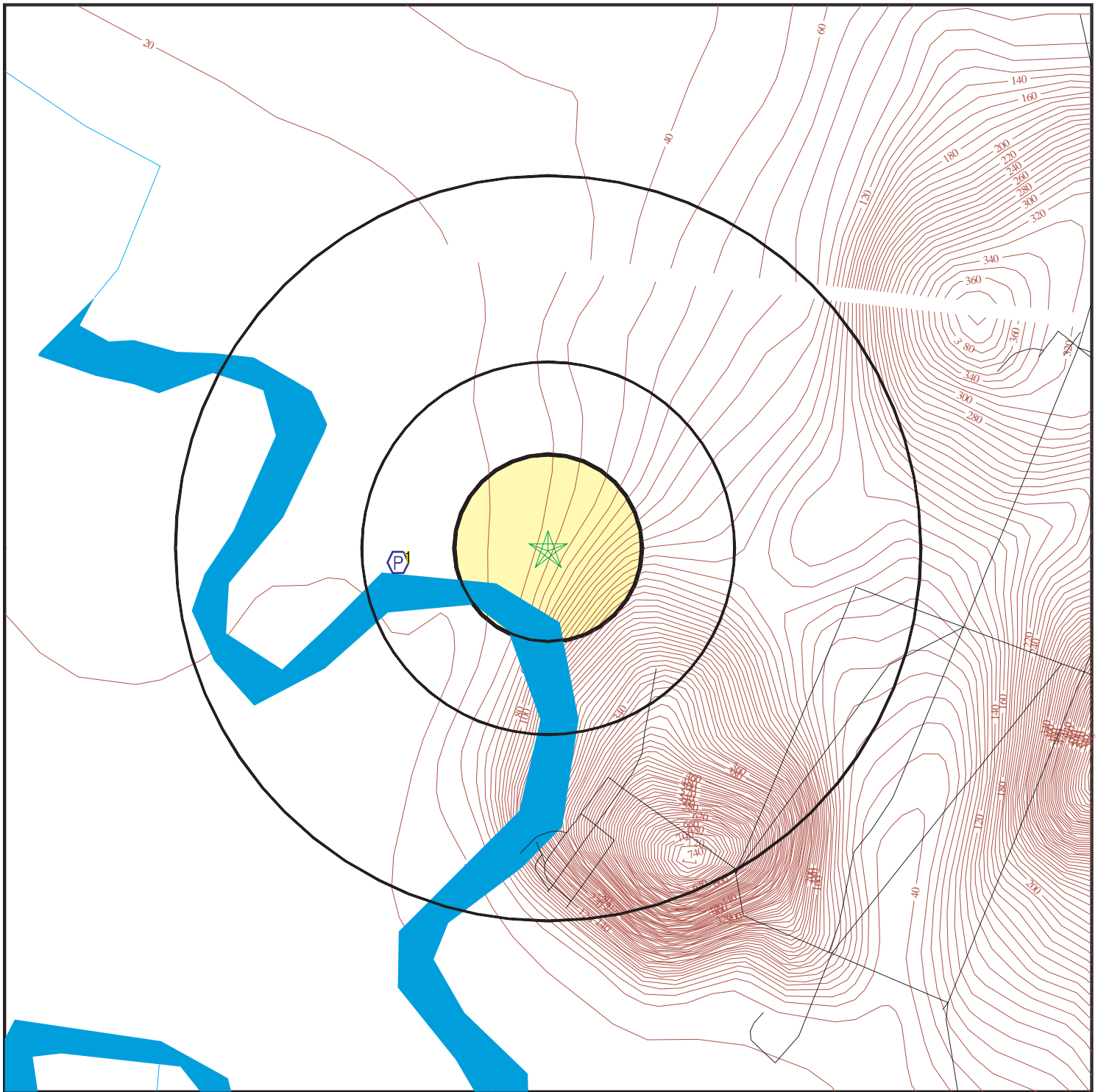
GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	AK2260090	1/4 - 1/2 Mile West

Note: PWS System location is not always the same as well location.

PHYSICAL SETTING SOURCE MAP - 01068070.1r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location

TARGET PROPERTY: Manokotak
 ADDRESS: Manokotak, AK
 CITY/STATE/ZIP: Manokotak AK 99628
 LAT/LONG: 58.9890 / 159.0500

CUSTOMER: MACTEC, Inc.
 CONTACT: Sasha Forland
 INQUIRY #: 01068070.1r
 DATE: October 20, 2003 8:07 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1

West
1/4 - 1/2 Mile
Lower

FRDS PWS AK2260090

PWS ID: AK2260090 PWS Status: Not Reported
Date Initiated: Not Reported Date Deactivated: Not Reported
PWS Name: MANOKOTAK WATER SYSTEM
MAYOR NELS FRANKLIN
P.O. BOX 170
MANOKOTAK, AK 99628

Addressee / Facility: Not Reported

Facility Latitude: Not Reported Facility Longitude: Not Reported
City Served: Not Reported
Treatment Class: Mixed (treated and untreated) Population: 370

PWS currently has or had major violation(s) or enforcement: Yes

VIOLATIONS INFORMATION:

Violation ID: 9453645 Source ID: 001 PWS Phone: Not Reported
Vio. beginning Date: 02/01/94 Vio. end Date: 02/28/94 Vio. Period: 001 Months
Num required Samples: Not Reported Number of Samples Taken: Not Reported
Analysis Result: Not Reported Maximum Contaminant Level: Not Reported
Analysis Method: Not Reported
Violation Type: Monitoring, Routine Major (TCR)
Contaminant: COLIFORM (TCR)
Vio. Awareness Date: Not Reported

Violation ID: 9340929 Source ID: 001 PWS Phone: 9072891027
Vio. beginning Date: 02/01/93 Vio. end Date: 02/28/93 Vio. Period: 001 Months
Num required Samples: Not Reported Number of Samples Taken: Not Reported
Analysis Result: Not Reported Maximum Contaminant Level: Not Reported
Analysis Method: Not Reported
Violation Type: Monitoring, Routine Major (TCR)
Contaminant: COLIFORM (TCR)
Vio. Awareness Date: Not Reported

Violation ID: 9354811 Source ID: 001 PWS Phone: 9072891027
Vio. beginning Date: 11/01/89 Vio. end Date: 10/31/92 Vio. Period: 036 Months
Num required Samples: Not Reported Number of Samples Taken: 000
Analysis Result: Not Reported Maximum Contaminant Level: Not Reported
Analysis Method: Not Reported
Violation Type: Monitoring, Regular
Contaminant: NITRATE
Vio. Awareness Date: Not Reported

Violation ID: 9340930 Source ID: 001 PWS Phone: 9072891027
Vio. beginning Date: 03/01/90 Vio. end Date: 02/28/93 Vio. Period: 036 Months
Num required Samples: Not Reported Number of Samples Taken: 000
Analysis Result: Not Reported Maximum Contaminant Level: Not Reported
Analysis Method: Not Reported
Violation Type: Monitoring, Regular
Contaminant: FLUORIDE
Vio. Awareness Date: Not Reported

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Violation ID:	9455587	Source ID:	001	PWS Phone:	Not Reported
Vio. beginning Date:	06/01/94	Vio. end Date:	06/30/94	Vio. Period:	001 Months
Num required Samples:	Not Reported	Number of Samples Taken:	Not Reported		
Analysis Result:	Not Reported	Maximum Contaminant Level:	Not Reported		
Analysis Method:	Not Reported				
Violation Type:	Monitoring, Routine Major (TCR)				
Contaminant:	COLIFORM (TCR)				
Vio. Awareness Date:	Not Reported				

Violation ID:	9451473	Source ID:	001	PWS Phone:	Not Reported
Vio. beginning Date:	11/01/93	Vio. end Date:	11/30/93	Vio. Period:	001 Months
Num required Samples:	Not Reported	Number of Samples Taken:	Not Reported		
Analysis Result:	Not Reported	Maximum Contaminant Level:	Not Reported		
Analysis Method:	Not Reported				
Violation Type:	Monitoring, Routine Major (TCR)				
Contaminant:	COLIFORM (TCR)				
Vio. Awareness Date:	Not Reported				

Violation ID:	9452254	Source ID:	001	PWS Phone:	Not Reported
Vio. beginning Date:	01/01/93	Vio. end Date:	12/31/93	Vio. Period:	012 Months
Num required Samples:	Not Reported	Number of Samples Taken:	000		
Analysis Result:	Not Reported	Maximum Contaminant Level:	Not Reported		
Analysis Method:	Not Reported				
Violation Type:	Monitoring, Regular				
Contaminant:	NITRATE				
Vio. Awareness Date:	Not Reported				

ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM				
Violation Type:	Monitoring, Routine Major (TCR)				
Contaminant:	COLIFORM (TCR)				
Compliance Period:	1999-09-01 - 1999-09-30	Analytical Value:	0000000.000000000		
Violation ID:	0050174	Enforcement ID:	9951256		
Enforcement Date:	1998-12-15	Enf. Action:	State Compliance Achieved		
System Name:	MANOKOTAK WATER SYSTEM				
Violation Type:	Monitoring, Routine Major (TCR)				
Contaminant:	COLIFORM (TCR)				
Compliance Period:	1999-09-01 - 1999-09-30	Analytical Value:	0000000.000000000		
Violation ID:	0050174	Enforcement ID:	Not Reported		
Enforcement Date:	Not Reported	Enf. Action:	Not Reported		
System Name:	MANOKOTAK WATER SYSTEM				
Violation Type:	Monitoring, Routine Major (TCR)				
Contaminant:	COLIFORM (TCR)				
Compliance Period:	2000-03-01 - 2000-03-31	Analytical Value:	0000000.000000000		
Violation ID:	0054736	Enforcement ID:	0000001		
Enforcement Date:	2000-05-30	Enf. Action:	Fed Violation/Reminder Notice		
System Name:	MANOKOTAK WATER SYSTEM				
Violation Type:	Initial Tap Sampling for Pb and Cu				
Contaminant:	LEAD & COPPER RULE				
Compliance Period:	2000-07-01 - 2001-07-19	Analytical Value:	0		
Violation ID:	0088888	Enforcement ID:	0152398		
Enforcement Date:	2001-05-29	Enf. Action:	State Violation/Reminder Notice		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Initial Tap Sampling for Pb and Cu		
Contaminant:	LEAD & COPPER RULE		
Compliance Period:	2000-07-01 - 2001-07-19	Analytical Value:	0
Violation ID:	0088888	Enforcement ID:	0152793
Enforcement Date:	2001-07-19	Enf. Action:	State Compliance Achieved
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	71		
Contaminant:	7000		
Compliance Period:	1999-10-19 - 2001-05-21	Analytical Value:	0
Violation ID:	0088888	Enforcement ID:	0000001
Enforcement Date:	2000-05-30	Enf. Action:	Fed Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	71		
Contaminant:	7000		
Compliance Period:	2000-07-01 - 2015-12-31	Analytical Value:	0
Violation ID:	0088888	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	71		
Contaminant:	7000		
Compliance Period:	2000-07-01 - 2015-12-31	Analytical Value:	0000000.000000000
Violation ID:	0088888	Enforcement ID:	0000001
Enforcement Date:	2000-05-30	Enf. Action:	Fed Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	71		
Contaminant:	7000		
Compliance Period:	2000-07-01 - 2015-12-31	Analytical Value:	0000000.000000000
Violation ID:	0088888	Enforcement ID:	0000001
Enforcement Date:	2000-05-30	Enf. Action:	Fed Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	71		
Contaminant:	7000		
Compliance Period:	1999-10-19 - 2015-12-31	Analytical Value:	0000000.000000000
Violation ID:	0099999	Enforcement ID:	0000001
Enforcement Date:	2000-05-30	Enf. Action:	Fed Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	71		
Contaminant:	7000		
Compliance Period:	1999-10-19 - 2015-12-31	Analytical Value:	0000000.000000000
Violation ID:	0099999	Enforcement ID:	0000001
Enforcement Date:	2000-05-30	Enf. Action:	Fed Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	71		
Contaminant:	7000		
Compliance Period:	1999-10-19 - 2015-12-31	Analytical Value:	0000000.000000000
Violation ID:	0099999	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	2000-11-01 - 2000-11-30	Analytical Value:	0000000.000000000
Violation ID:	0150087	Enforcement ID:	0000001
Enforcement Date:	2000-05-30	Enf. Action:	Fed Violation/Reminder Notice

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	0000001
Contaminant:	COLIFORM (TCR)	Enf. Action:	Fed Violation/Reminder Notice
Compliance Period:	2000-12-01 - 2000-12-31		
Violation ID:	0150565		
Enforcement Date:	2000-05-30		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0
Violation Type:	Initial Tap Sampling for Pb and Cu	Enforcement ID:	0152398
Contaminant:	LEAD & COPPER RULE	Enf. Action:	State Violation/Reminder Notice
Compliance Period:	2000-07-01 - 2001-07-19		
Violation ID:	0153069		
Enforcement Date:	2001-05-29		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0
Violation Type:	Initial Tap Sampling for Pb and Cu	Enforcement ID:	0152793
Contaminant:	LEAD & COPPER RULE	Enf. Action:	State Compliance Achieved
Compliance Period:	2000-07-01 - 2001-07-19		
Violation ID:	0153069		
Enforcement Date:	2001-07-19		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Initial Tap Sampling for Pb and Cu	Enforcement ID:	0000001
Contaminant:	LEAD & COPPER RULE	Enf. Action:	Fed Violation/Reminder Notice
Compliance Period:	2000-07-01 - 2015-12-31		
Violation ID:	0153069		
Enforcement Date:	2000-05-30		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Initial Tap Sampling for Pb and Cu	Enforcement ID:	0000001
Contaminant:	LEAD & COPPER RULE	Enf. Action:	Fed Violation/Reminder Notice
Compliance Period:	2000-07-01 - 2015-12-31		
Violation ID:	0153069		
Enforcement Date:	2000-05-30		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0
Violation Type:	71	Enforcement ID:	0199999
Contaminant:	7000	Enf. Action:	Fed Compliance Achieved
Compliance Period:	1999-10-19 - 2001-05-21		
Violation ID:	0153069		
Enforcement Date:	2001-05-21		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	00000000.00
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	Not Reported
Contaminant:	COLIFORM (TCR)	Enf. Action:	Not Reported
Compliance Period:	1994-02-01 - 1994-02-28		
Violation ID:	9453645		
Enforcement Date:	Not Reported		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	00000000.00
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	Not Reported
Contaminant:	COLIFORM (TCR)	Enf. Action:	Not Reported
Compliance Period:	1994-06-01 - 1994-06-30		
Violation ID:	9455587		
Enforcement Date:	Not Reported		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	00000000.00
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	Not Reported
Contaminant:	COLIFORM (TCR)	Enf. Action:	Not Reported
Compliance Period:	1994-07-01 - 1994-07-31		
Violation ID:	9456108		
Enforcement Date:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	00000000.00
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	Not Reported
Contaminant:	COLIFORM (TCR)	Enf. Action:	Not Reported
Compliance Period:	1994-09-01 - 1994-09-30		
Violation ID:	9550302		
Enforcement Date:	Not Reported		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	00000000.00
Violation Type:	Monitoring, Repeat Major (TCR)	Enforcement ID:	9600001E
Contaminant:	COLIFORM (TCR)	Enf. Action:	EPA Generated Implicit TCR RTC
Compliance Period:	1994-10-01 - 1994-10-31		
Violation ID:	9550675		
Enforcement Date:	1996-03-31		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	00000000.00
Violation Type:	Monitoring, Routine Minor (TCR)	Enforcement ID:	9600001E
Contaminant:	COLIFORM (TCR)	Enf. Action:	EPA Generated Implicit TCR RTC
Compliance Period:	1994-11-01 - 1994-11-30		
Violation ID:	9551007		
Enforcement Date:	1996-03-31		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	00000000.00
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	9600001E
Contaminant:	COLIFORM (TCR)	Enf. Action:	EPA Generated Implicit TCR RTC
Compliance Period:	1994-12-01 - 1994-12-31		
Violation ID:	9551451		
Enforcement Date:	1996-03-31		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	00000000.00
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	9600001E
Contaminant:	COLIFORM (TCR)	Enf. Action:	EPA Generated Implicit TCR RTC
Compliance Period:	1995-04-01 - 1995-04-30		
Violation ID:	9553174		
Enforcement Date:	1996-03-31		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	00000000.00
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	9600001E
Contaminant:	COLIFORM (TCR)	Enf. Action:	EPA Generated Implicit TCR RTC
Compliance Period:	1995-05-01 - 1995-05-31		
Violation ID:	9553527		
Enforcement Date:	1996-03-31		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.00000000
Violation Type:	Initial Tap Sampling for Pb and Cu	Enforcement ID:	9951256
Contaminant:	LEAD & COPPER RULE	Enf. Action:	State Compliance Achieved
Compliance Period:	1993-07-01 - 2015-12-31		
Violation ID:	9553943		
Enforcement Date:	1998-12-15		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	00000000.00
Violation Type:	Monitoring, Regular	Enforcement ID:	Not Reported
Contaminant:	XYLENES, TOTAL	Enf. Action:	Not Reported
Compliance Period:	1994-01-01 - 1994-12-31		
Violation ID:	9556773		
Enforcement Date:	Not Reported		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	00000000.00
Violation Type:	Monitoring, Regular	Enforcement ID:	Not Reported
Contaminant:	P-DICHLOROBENZENE	Enf. Action:	Not Reported
Compliance Period:	1994-01-01 - 1994-12-31		
Violation ID:	9556774		
Enforcement Date:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM	
Violation Type:	Monitoring, Regular	
Contaminant:	1,1,1-TRICHLOROETHANE	
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value: 00000000.00
Violation ID:	9556775	Enforcement ID: Not Reported
Enforcement Date:	Not Reported	Enf. Action: Not Reported
System Name:	MANOKOTAK WATER SYSTEM	
Violation Type:	Monitoring, Regular	
Contaminant:	O-DICHLOROBENZENE	
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value: 00000000.00
Violation ID:	9556776	Enforcement ID: Not Reported
Enforcement Date:	Not Reported	Enf. Action: Not Reported
System Name:	MANOKOTAK WATER SYSTEM	
Violation Type:	Monitoring, Regular	
Contaminant:	CARBON TETRACHLORIDE	
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value: 00000000.00
Violation ID:	9556777	Enforcement ID: Not Reported
Enforcement Date:	Not Reported	Enf. Action: Not Reported
System Name:	MANOKOTAK WATER SYSTEM	
Violation Type:	Monitoring, Regular	
Contaminant:	MONOCHLOROBENZENE (CHLOROBENZENE)	
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value: 00000000.00
Violation ID:	9556778	Enforcement ID: Not Reported
Enforcement Date:	Not Reported	Enf. Action: Not Reported
System Name:	MANOKOTAK WATER SYSTEM	
Violation Type:	Monitoring, Regular	
Contaminant:	TOLUENE	
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value: 00000000.00
Violation ID:	9556779	Enforcement ID: Not Reported
Enforcement Date:	Not Reported	Enf. Action: Not Reported
System Name:	MANOKOTAK WATER SYSTEM	
Violation Type:	Monitoring, Regular	
Contaminant:	TETRACHLOROETHYLENE	
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value: 00000000.00
Violation ID:	9556780	Enforcement ID: Not Reported
Enforcement Date:	Not Reported	Enf. Action: Not Reported
System Name:	MANOKOTAK WATER SYSTEM	
Violation Type:	Monitoring, Regular	
Contaminant:	STYRENE	
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value: 00000000.00
Violation ID:	9556781	Enforcement ID: Not Reported
Enforcement Date:	Not Reported	Enf. Action: Not Reported
System Name:	MANOKOTAK WATER SYSTEM	
Violation Type:	Monitoring, Regular	
Contaminant:	ETHYLBENZENE	
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value: 00000000.00
Violation ID:	9556782	Enforcement ID: Not Reported
Enforcement Date:	Not Reported	Enf. Action: Not Reported
System Name:	MANOKOTAK WATER SYSTEM	
Violation Type:	Monitoring, Regular	
Contaminant:	1,2-DICHLOROPROPANE	
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value: 00000000.00
Violation ID:	9556783	Enforcement ID: Not Reported
Enforcement Date:	Not Reported	Enf. Action: Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	CIS-1,2-DICHLOROETHYLENE		
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value:	00000000.00
Violation ID:	9556784	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TRANS-1,2-DICHLOROETHYLENE		
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value:	00000000.00
Violation ID:	9556785	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,1-DICHLOROETHYLENE		
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value:	00000000.00
Violation ID:	9556786	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TRICHLOROETHYLENE		
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value:	00000000.00
Violation ID:	9556787	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	BENZENE		
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value:	00000000.00
Violation ID:	9556788	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,2-DICHLOROETHANE		
Compliance Period:	1994-01-01 - 1994-12-31	Analytical Value:	00000000.00
Violation ID:	9556789	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-06-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9559047	Enforcement ID:	9600001E
Enforcement Date:	1996-03-31	Enf. Action:	EPA Generated Implicit TCR RTC
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-07-01 - 1995-07-31	Analytical Value:	00000000.00
Violation ID:	9559522	Enforcement ID:	9600001E
Enforcement Date:	1996-03-31	Enf. Action:	EPA Generated Implicit TCR RTC
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Repeat Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-08-01 - 1995-08-30	Analytical Value:	00000000.00
Violation ID:	9560017	Enforcement ID:	9600001E
Enforcement Date:	1996-03-31	Enf. Action:	EPA Generated Implicit TCR RTC

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Routine Minor (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-09-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9650321	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	XYLENES, TOTAL		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654582	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	P-DICHLOROBENZENE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654583	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,1,1-TRICHLOROETHANE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654584	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	O-DICHLOROBENZENE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654585	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	CARBON TETRACHLORIDE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654586	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	MONOCHLOROBENZENE (CHLOROBENZENE)		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654587	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TOLUENE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654588	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TETRACHLOROETHYLENE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654589	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	STYRENE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654590	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ETHYLBENZENE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654591	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,2-DICHLOROPROPANE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654592	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	CIS-1,2-DICHLOROETHYLENE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654593	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TRANS-1,2-DICHLOROETHYLENE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654594	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,1-DICHLOROETHYLENE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654595	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TRICHLOROETHYLENE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654596	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	BENZENE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654597	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,2-DICHLOROETHANE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9654598	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	NITRATE		
Compliance Period:	1995-01-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9655501	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	SIMAZINE		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756405	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	PICLORAM		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756406	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	DIQUAT		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756407	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	DINOSEB		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756408	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ENDRIN		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756409	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TOTAL POLYCHLORINATED BIPHENYLS (PCB)		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756410	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	PENTACHLOROPHENOL		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756411	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	HEPTACHLOR EPOXIDE		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756412	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	HEPTACHLOR		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756413	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ETHYLENE DIBROMIDE (EDB)		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756414	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	CHLORDANE		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756415	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ATRAZINE		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756416	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB SULFONE		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756417	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB SULFOXIDE		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756418	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756419	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	2,4,5-TP (SILVEX)		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756420	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	2,4-D		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756421	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TOXAPHENE		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756422	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	BHC-GAMMA (LINDANE)		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756423	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	METHOXYCHLOR		
Compliance Period:	1995-01-01 - 1995-03-31	Analytical Value:	00000000.00
Violation ID:	9756424	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	SIMAZINE		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758966	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	PICLORAM		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758967	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	DIQUAT		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758968	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	DINOSEB		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758969	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ENDRIN		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758970	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TOTAL POLYCHLORINATED BIPHENYLS (PCB)		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758971	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	PENTACHLOROPHENOL		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758972	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	HEPTACHLOR EPOXIDE		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758973	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	HEPTACHLOR		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758974	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ETHYLENE DIBROMIDE (EDB)		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758975	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	CHLORDANE		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758976	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ATRAZINE		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758977	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB SULFONE		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758978	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB SULFOXIDE		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758979	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758980	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	2,4,5-TP (SILVEX)		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758981	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	2,4-D		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758982	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TOXAPHENE		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758983	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	BHC-GAMMA (LINDANE)		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758984	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	METHOXYCHLOR		
Compliance Period:	1995-04-01 - 1995-06-30	Analytical Value:	00000000.00
Violation ID:	9758985	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	SIMAZINE		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761547	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	PICLORAM		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761548	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	DIQUAT		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761549	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	DINOSB		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761550	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ENDRIN		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761551	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TOTAL POLYCHLORINATED BIPHENYLS (PCB)		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761552	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	PENTACHLOROPHENOL		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761553	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	HEPTACHLOR EPOXIDE		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761554	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	HEPTACHLOR		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761555	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ETHYLENE DIBROMIDE (EDB)		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761556	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	CHLORDANE		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761557	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ATRAZINE		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761558	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB SULFONE		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761559	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB SULFOXIDE		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761560	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761561	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	2,4,5-TP (SILVEX)		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761562	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	2,4-D		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761563	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TOXAPHENE		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761564	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	BHC-GAMMA (LINDANE)		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761565	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	METHOXYCHLOR		
Compliance Period:	1995-07-01 - 1995-09-30	Analytical Value:	00000000.00
Violation ID:	9761566	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	SIMAZINE		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764108	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	PICLORAM		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764109	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	DIQUAT		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764110	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	DINOSEB		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764111	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ENDRIN		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764112	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TOTAL POLYCHLORINATED BIPHENYLS (PCB)		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764113	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	PENTACHLOROPHENOL		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764114	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	HEPTACHLOR EPOXIDE		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764115	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	HEPTACHLOR		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764116	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ETHYLENE DIBROMIDE (EDB)		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764117	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	CHLORDANE		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764118	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ATRAZINE		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764119	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB SULFONE		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764120	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB SULFOXIDE		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764121	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ALDICARB		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764122	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	2,4,5-TP (SILVEX)		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764123	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	2,4-D		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764124	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TOXAPHENE		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764125	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	BHC-GAMMA (LINDANE)		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764126	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	METHOXYCHLOR		
Compliance Period:	1995-10-01 - 1995-12-31	Analytical Value:	00000000.00
Violation ID:	9764127	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	Not Reported
Contaminant:	COLIFORM (TCR)	Enf. Action:	Not Reported
Compliance Period:	1998-06-01 - 1998-06-30		
Violation ID:	98057345		
Enforcement Date:	Not Reported		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	99050043
Contaminant:	COLIFORM (TCR)	Enf. Action:	State Violation/Reminder Notice
Compliance Period:	1998-08-01 - 1998-08-31		
Violation ID:	98058032		
Enforcement Date:	1998-10-13		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	Not Reported
Contaminant:	COLIFORM (TCR)	Enf. Action:	Not Reported
Compliance Period:	1998-08-01 - 1998-08-31		
Violation ID:	98058032		
Enforcement Date:	Not Reported		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	99050043
Contaminant:	COLIFORM (TCR)	Enf. Action:	State Violation/Reminder Notice
Compliance Period:	1998-09-01 - 1998-09-30		
Violation ID:	99050178		
Enforcement Date:	1998-10-13		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	99050043
Contaminant:	COLIFORM (TCR)	Enf. Action:	State Violation/Reminder Notice
Compliance Period:	1998-10-01 - 1998-10-31		
Violation ID:	99050428		
Enforcement Date:	1998-10-13		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	99050043
Contaminant:	COLIFORM (TCR)	Enf. Action:	State Violation/Reminder Notice
Compliance Period:	1998-11-01 - 1998-11-30		
Violation ID:	99050666		
Enforcement Date:	1998-10-13		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Monitoring, Routine Major (TCR)	Enforcement ID:	99050043
Contaminant:	COLIFORM (TCR)	Enf. Action:	State Violation/Reminder Notice
Compliance Period:	1998-12-01 - 1998-12-31		
Violation ID:	99051049		
Enforcement Date:	1998-10-13		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Monitoring, Regular	Enforcement ID:	99050043
Contaminant:	NITRATE	Enf. Action:	State Violation/Reminder Notice
Compliance Period:	1998-01-01 - 1998-12-31		
Violation ID:	99051657		
Enforcement Date:	1998-10-13		
System Name:	MANOKOTAK WATER SYSTEM	Analytical Value:	0000000.000000000
Violation Type:	Monitoring, Regular	Enforcement ID:	99050043
Contaminant:	METHYLENE CHLORIDE (DICHLOROMETHANE)	Enf. Action:	State Violation/Reminder Notice
Compliance Period:	1998-01-01 - 1998-12-31		
Violation ID:	99053362		
Enforcement Date:	1998-10-13		

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,2,4-TRICHLOROBENZENE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053363	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,1,2-TRICHLOROETHANE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053364	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	XYLENES, TOTAL		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053365	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	P-DICHLOROBENZENE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053366	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,1,1-TRICHLOROETHANE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053367	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	O-DICHLOROBENZENE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053368	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	CARBON TETRACHLORIDE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053369	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	MONOCHLOROBENZENE (CHLOROBENZENE)		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053370	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TOLUENE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053371	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TETRACHLOROETHYLENE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053372	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	STYRENE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053373	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	ETHYLBENZENE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053374	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,2-DICHLOROPROPANE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053375	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1998-09-01 - 1998-09-30	Analytical Value:	0000000.000000000
Violation ID:	99053376	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TRANS-1,2-DICHLOROETHYLENE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053377	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,1-DICHLOROETHYLENE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053378	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	TRICHLOROETHYLENE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053379	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	BENZENE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053380	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice

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ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Regular		
Contaminant:	1,2-DICHLOROETHANE		
Compliance Period:	1998-01-01 - 1998-12-31	Analytical Value:	0000000.000000000
Violation ID:	99053381	Enforcement ID:	99050043
Enforcement Date:	1998-10-13	Enf. Action:	State Violation/Reminder Notice
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1999-01-01 - 1999-01-31	Analytical Value:	0000000.000000000
Violation ID:	9955948	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1999-02-01 - 1999-02-28	Analytical Value:	0000000.000000000
Violation ID:	9956200	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Repeat Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1999-03-01 - 1999-03-31	Analytical Value:	0000000.000000000
Violation ID:	9956720	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Routine Minor (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1999-04-01 - 1999-04-30	Analytical Value:	0000000.000000000
Violation ID:	9956862	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1999-05-01 - 1999-05-31	Analytical Value:	0000000.000000000
Violation ID:	9957359	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1999-06-01 - 1999-06-30	Analytical Value:	0000000.000000000
Violation ID:	9957618	Enforcement ID:	9951256
Enforcement Date:	1998-12-15	Enf. Action:	State Compliance Achieved
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1999-06-01 - 1999-06-30	Analytical Value:	0000000.000000000
Violation ID:	9957618	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Sanitary Survey (TCR)		
Contaminant:	Not Reported		
Compliance Period:	1994-02-01 - 1999-01-31	Analytical Value:	0000000.000000000
Violation ID:	9957812	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

ENFORCEMENT INFORMATION:

System Name:	MANOKOTAK WATER SYSTEM		
Violation Type:	Initial Tap Sampling for Pb and Cu		
Contaminant:	LEAD & COPPER RULE		
Compliance Period:	1993-07-01 - 2015-12-31	Analytical Value:	0000000.000000000
Violation ID:	9957943	Enforcement ID:	9951256
Enforcement Date:	1998-12-15	Enf. Action:	State Compliance Achieved

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: AK Radon

Radon Test Results

City	Zip	Total Sites	<0.5 pCi/L	0.5-2.0	2.1-4.0	4.1-10	10-20	>20 pCi/L
MANOKOTAK	99628	4	2	1	0	1	0	0

Federal EPA Radon Zone for DILLINGHAM County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

RADON

State Database: AK Radon

Source: University of Alaska Fairbanks
Telephone: 907-474-7201
Radon Information

Area Radon Information

Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration



"Linking Technology with Tradition"

Sanborn® Map Report

Ship to: Sasha Forland
MACTEC, Inc.
601 E 57th Place
Anchorage, AK 99518

Order Date: 10/20/2003 **Completion Date:** 10/21/2003 8:04

Inquiry #: 1068070.2s

P.O. #: 55343

Site Name: Manokotak

Address: Manokotak AK

City/State: Manokotak, AK 99628

Customer Project: 55343.3.5

3021565

907-563-8102

Cross Streets:

This document reports that the largest and most complete collection of Sanborn fire insurance maps has been reviewed based on client-supplied information, and fire insurance maps depicting the target property at the specified address were not identified.

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APPENDIX D

INTERVIEW TRANSCRIPTS

PHASE I SITE INVESTIGATION
Manokotak Airport

NAME *Edward Nick*
Title *City Administrator*
Interviewer *Lindsey Flagstad*
Date *September 3, 2003*

Questions:

1. How long have you lived in Manokotak?
6 years
2. What was the historical use of the airport property?
No knowledge of historical use of existing airport, R1A and R3 were used as hunting grounds
3. Were there any buildings, fuel tanks, or structures in the location of the airport before construction?
No knowledge
4. What was the historical use of the properties adjoining the existing airstrip?
No knowledge
5. Are you aware of any conditions that may have led to contamination of the airport property or adjacent properties?
Spill at village tank farm of a few thousand gallons
6. Which air service companies operate out of the Manokotak airport?
Penn Air, Bristol Bay Air (blue plane), Grant, Coupichiak Air, Alaska Island Air, Arctic Circle, Mulchatna, and one private plane owned by City of Manokotak President Billy Bartam
7. Who maintains the airstrip?
Karl Itumulria, of Manokotak Natives Limited. Karl lives in the yellow house next to the large satellite dish
8. Has the village landfill ever been in another location?
No. A Feasibility Study for relocation of the landfill is being conducted. Possible locations are 1. the loop road gravel pit, however this location is used for berry picking and by moose as a corridor 2. the gravel pit west of the wind tower however this is the best gravel source in Manokotak and relocation would position the landfill less than 1.5 miles from alternative R1A thereby creating a potential wildlife hazard.
9. Has there ever been an alternate dumping area?
No
10. Has there ever been a military presence in Manokotak?
None other than the Alaska National Guard. The Arctic Air Team has been to Manokotak twice in the last 6 years.
11. Is there anyone else with historical knowledge that you would recommend speaking with?
See question 7.

PHASE I SITE INVESTIGATION
Manokotak Airport

NAME *Mike Gloko*
Title *City Council President*
Interviewer *Lindsey Flagstad*
Date *September 3, 2003*

Questions:

1. How long have you lived in Manokotak?
Lifetime resident, Mike was 8 years old when elders voted (in a tent) to consolidate the three villages to provide a common meeting place for church activities. Manokotak was chosen because it was the best location. The original church was located by the town cemetery. The Moravian church was built in the 1960s. Village of Manokotak was established in 1947, the population was nomadic prior to incorporation.
2. What was the historical use of the airport property?
Subsistence
3. Were there any buildings, fuel tanks, or structures in the location of the airport before construction?
Subsistence camps at the existing airport location
4. What was the historical use of the properties adjoining the existing airstrip?
No knowledge
5. Are you aware of any conditions that may have led to contamination of the airport property or adjacent properties?
Before construction of the water and sewer systems residents dumped honey buckets into pits near by the houses. There were fewer residents at this time.
6. Which air service companies operate out of the Manokotak airport?
See Ed Nick Interview
7. Who maintains the airstrip?
See Ed Nick Interview
8. Has the village landfill ever been in another location?
No
9. Has there ever been an alternate dumping area?
No
10. Has there ever been a military presence in Manokotak?
No
11. Is there anyone else with historical knowledge that you would recommend speaking with?
See Nancy George Interview.

PHASE I SITE INVESTIGATION
Manokotak Airport

NAME *Nancy George*
Title *Grant Writer for the City of Manokotak*
Interviewer *Lindsey Flagstad*
Date *September 3, 2003*

Questions:

1. How long have you lived in Manokotak?
Native of Manokotak, grew up here then moved to Kwigillingok for 10 years where she also worked as a grant writer, Nancy has just recently returned to Manokotak.
2. What was the historical use of the airport property?
Subsistence use, specifically gathering and subsistence camp location at the existing airport. There were no subsistence camps at R1A and R3, Nancy is not sure if there are cultural sites in these areas. There was a Boy Scout camp (or some sort of organized camp) at the location of the existing airport.
3. Were there any buildings, fuel tanks, or structures in the location of the airport before construction?
No permanent structures. Subsistence camps were located at the toe of slope; this area was excavated for airport construction. The Boy Scouts (or some sort of organized camp) may have had temporary structures in the area.
4. What was the historical use of the properties adjoining the existing airstrip?
Area surrounding R1A and R3 is primarily used for subsistence activities such as wood collecting, ice fishing, beaver trapping, and berry picking. There is a secondary winter route to Dillingham in the R1A/R3 area, however most residents use a more inland route that follows the approximate route of air traffic through the pass. For this reason there are ATV trails in both areas. Manokotak residents are trying to prevent ATV travel on tundra and wetlands during wet periods and to restrict travel to existing trails.
5. Are you aware of any conditions that may have led to contamination of the airport property or adjacent properties?
No
6. Which air service companies operate out of the Manokotak airport?
See Ed Nick Interview
7. Who maintains the airstrip?
See Ed Nick Interview
8. Has the village landfill ever been in another location?
No, but the current landfill has expanded down slope with increased use.
9. Has there ever been an alternate dumping area?
No
10. Has there ever been a military presence in Manokotak?
No
11. Is there anyone else with historical knowledge that you would recommend speaking with?
Nancy kindly called all city employees to find individuals who were available to speak with us.

**MACTEC ENGINEERING AND CONSULTING
TELEPHONE CONVERSATION RECORD**

File: Three Airports-Manokotak

Job No.: 55343

Date: 11/24/03

Person (called, calling): Louie Alakayak

Time: 1:30 p.m.

Representing: Manokotak City Maintenance

City: Manokotak

Subject: Snow Removal Equipment Storage Building

Tel. No.: 907-262-9368

Items Discussed:

Brandon Miner, MACTEC called Louie Alakayak, City of Manokotak concerning the Snow Removal Equipment Storage Building (SREB) at the existing Manokotak Airport apron.

I asked Louie about the SREB and the any presence of staining from fuel or oil spills. Louie stated that the floor of the SREB is gravel and that no spills have occurred that he is aware of. He stated that 2-500 gallon diesel tanks are present in the building and that one is full and one had approximately 450 gallons. Louie stated that some small spots of stained gravel may be present from changing the oil of the graders, but that there are no large areas of stained gravel.

Signature: Brandon Miner

DISTRIBUTION

Manokotak Airport Improvements
Final Phase I Preliminary Site Investigation Report
Manokotak, Alaska

January 15, 2004

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PDC Inc. Consulting Engineers
1028 Aurora Drive
Fairbanks, Alaska 99709

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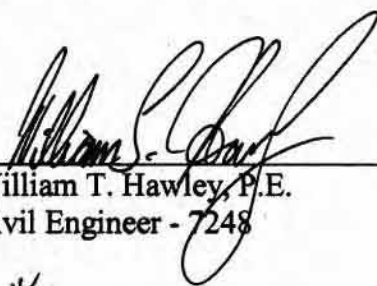
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William T. Hawley, P.E.
Civil Engineer - 7248

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